# Purchase Order Receipt Listing

Thursday, July 26, 2012 8:56:04 AM

All amounts are calculated in domestic currency.

All Vendors PO ID PO17463 Réceipt Dates from 7/26/2012 to 7/26/2012 All Line Item Types All Item ID/GL/WOs All Rec. Employees All Currencies Grouped by Vendor ID

	Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)		Book Amt
	VendorID\Ven	dor Name	VC-C	COP001 Thysser	ıkrupp Materials CA Ltd							
	PO17463	3		-M303B1.000X1.000	f	7/25/2012	7/26/2012	12.7000	\$13.49	0.0000	0	\$171.36
	ĈAD	No		303 BAR 1" X 1" 122521	f	12.0000	DESJ02		\$171.36	0.0000	0	
		6		M304S11GA	sť	7/23/2012	7/26/2012	280.0000	\$8.85	0.0000	0	\$2,478.17
		No		304/316 0.125 Sheet 122521	sf	280.0000	DESJ02		\$2,478.17	0.0000	0	
		7 <sub>5</sub>		M6061T6B0.500X01 250	. f	7/23/2012	7/26/2012	24.0000	\$1.55	0.0000	0	\$37.09
		No		6061-T6 Bar .500 x 1.25 122521	f	24.0000	DESJ02		\$37.09	0.0000	0	1
		8		M6061T6B0.500X06	. f	7/23/2012	7/26/2012	24.0000	\$7.03	0.0000	0	\$168.78
		No		6061-T6 Bar .500 x 6.00 122521	Ĺ	24.0000	DESJ02		\$168.78	0.0000	0	
		0			C	7/22/2012	7/27/2012	24,0000	\$2.62	0.0000	0	¢/2.90
•		9		M6061T6B0.750X01			7/26/2012	24.0000	\$2.62	0.0000	0	\$62.80
		No		6061-T6 Bar .750 X 1.50 122521	f	24.0000	DESJ02		\$62.80	0.0000	0	
		10		M6061T6B1.000X04	l, f	7/23/2012	7/26/2012	24.0000	\$9.24	0.0000	0	\$221.77
		No		6061-T6 Bar 1.00 x 4.00 122521	f	24.0000	DESJ02		\$221.77	0.0000	0	
		11		M6(\$1T6B1.250X01	, f	7/23/2012	7/5/2012	12.0000	\$3.60	0.070.0	0	\$43.18
		No		6061-T6 Bar 1.25 x 1.25 122521	f	12.0000	DESJ02		\$43,18	0.0000	0	

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert/Sid	PO U/M / Stock U/M	Required Date Required Qtv	Reev Date Recv Emp	Recv Qty (PO U/M)		Per Unit/ rv Value	Inspected Otto Rejected Ory (PO UM)	MRB Qty/ MRB Reject Qty	Book Amt
VendorID\Vend	lor Name	VC-C	OP001 Thyssei	ikrupp Materials CA Ltd								
PO17463	12		M6061T6B1.500X02	. f	7/23/2012	7/26/2012	12.0000		\$6.87	0.0000	0	\$82.43
CAD	No		6061-T6 Bar 1.50 x 2.00 122521	f	12.0000	DESJ02			\$82.43	0.0000	0	
	13		M6061T6B2.000X02 250	. f	7/23/2012	7/26/2012	12.0000	1	\$1+.61	0.0000	0	\$139.34
	No		6061-T6 Bar 2.00 x 2.25 122521	ſ	12.0000	DESJ02			\$139.34	0.0000	0	
	14		M6061T6R1.000	f	7/23/2012	7/26/2012	24.0000	2	\$1.80	0.0000	0	\$43.18
	No		ROUND BAR 1.00" 122521	f	24.0000	DESJ02			\$43.18	0.0000	0	
	15		M6061T6R3.500	f	7/23/2012	7/26/2012	12.0000		\$23.06	0.0000	0	\$276.73
	No		6061 RD bar 3.50 122521	f	12.0000	DESJ02			\$276,73	0.0000	0	
	17		M6061T6S.080 -	sf	7/23/2012	7/26/2012	96.0000		\$3.05	0.0000	0	\$292.43
	No		6061-T6 .080 Sheet 122521	sf	96.0000	DESJ02			\$292.43	0.0000	0	
	18		M6061T6S.125	sf	7/23/2012	7/26/2012	64.0000	,	\$4.75	0.0000	0	\$304.20
	No		6061-T6 .125 Sheet 122521	sf	64.0000	DESJ02			\$304.20	0.0000	0	
									Total	Total Received Q Qty to Inspect (Po Total Reject Q Total Receip tal Balance Due Q	O U/M): uantity: t Value:	620.7000 0.0000 0.0000 \$4,321.47 0.0000

# **Receiving Report**

	1 /					
D	ate: <u>/2/7/2/</u>	<u>,</u>	Batch	No: M	1225,	1
Si	upplier: Thy So	16-H	Dart	P/0: <u>1</u>	7463	
Packing Slip: Invoice: Receipt: Discrepancies	Yes No No Cr	W SI	elease Note A /aybill Attache nipment Com C6 Inspection /ork Order	plete A Y	es No es No es No es No	
Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments
M 304BO-	0620 X 3000	24	o )	ا ال	127	
M606/T	65032	76	J	Ö	96	
M 7075	+33200063	256	၁	ں	6	
•		Initials	of receiver	if shipment	OK) Level	12
Production/Ad Date Received/Cos Initial	10/1/0/9				Locati	on

No: PEC 777693 LADING BILL Ship Date 23Jul12 at 10:57 From PFW Ship From: THYSSENKRUPP MATERIALS NA Probill 2821 LANGSTAFF ROAD Via VIM TRANSFER CONCORD, ONTARIO L4K 5C6 FOB CONCORD Tel: 905 669 9444 Fax: 9057389033 PREPAID Frt Route 0- 0 Manifest Vhcle Trailer Slp STAN IVERS (905-532-1350) Sold To: ( 20115) Ship To: ( 1) DART AEROSPACE DART AEROSPACE 1270 ABERDEEN ST 1270 ABERDEEN ST HAWKESBURY, ON K6A 1K7 HAWKESBURY, ON K6A 1K7

\_\_\_\_\_\_\_ BILL OF LADING 1) Our Order PEC-472083- 1 Your PO # 17463 STAINLESS STEEL SQ BAR 303\_STAINLESS 1.00" X 151.0000" Heat Number Tag No Quantity PCS MTP Wt LBS 245298 88401 12 7.0000 1 43 2) Our Order PEC-472083- 2 Your PO # 17463 STAINLESS STEEL SHEET 304-2B .1200 Nom X 48.0000" X 120.0000" Quantity PCS 280.00 SFT 7 Heat Number Tag No SF29688 88728 Wt LBS SF29688 3) Our Order PEC-472083- 3 Your PO # 17463 ALUMINUM FLAT BAR 6061-T6511 .50" x 1.250" X 144.0000" Heat Number Tag No Quantity 88402 24 FT Wt. LBS Z00248009 17 4) Our Order PEC-472083- 4 Your PO # 17463 ALUMINUM FLAT BAR 6061-T6511 .50" X 6.00" X 144.0000" Heat Number Tag No Quantity 201210006 88403 24 FT Heat Number Wt LBS 5) Our Order PEC-472083- 5 Your PO # 17463 ALUMINUM FLAT BAR 6061-T6511 .750" X 1.50" X 144.0000" Heat Number Quantity Wt LBS Tag No HK079 712 8840424 FT

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE \* RAPPORTÉES IMMÉDIATEMENT. ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

Tel: 613-632-9577 Fax: 613-632-1053

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT. MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

25 JUL. 2012

RECUEN BONNE CONDITIONS / RECEIVED IN GOOD CONDITION TVQ/QST# 1017327981 TQ001 TPS/GST TVH/HST # 140223934 RT0001

Page: 1 ....Continued

L A D I N G No: PEC 777693 BILL OF Ship Date 23Jul12 at 10:57 From PFW Ship From: THYSSENKRUPP MATERIALS NA Probill Via VIM TRANSFER 2821 LANGSTAFF ROAD FOB CONCORD Frt PREPAID Route 0- 0 Manifest CONCORD, ONTARIO L4K 5C6 Tel: 905 669 9444 Fax: 9057389033 Vhcle Trailer Slp STAN IVERS (905-532-1350) Ship To: (1) Sold To: (20115) DART AEROSPACE DART AEROSPACE \_\_\_\_\_\_ BILL OF LADING 6) Our Order PEC-472083- 6 Your PO # 17463 ALUMINUM FLAT BAR 6061-T6511 1.00" x 4.00" X 144.0000" Heat Number Tag No Quantity PCS MTP 201210303 88405 24 FT 2 MTP 7) Our Order PEC-472083- 7 Your PO # 17463 ALUMINUM SQUARE BAR 6061-T6511 1.250" X 144.0000" Heat Number Tag No Quantity 88406 Z00240017 8) Our Order PEC-472083- 8 Your PO # 17463 ALUMINUM FLAT BAR 6061-T6511 1.50" x 2.00" X 144.0000" Heat Number Tag No Quantity 201209117 88407 12 FT 2 12 FT 🗸 \_\_\_\_\_ 9) Our Order PEC-472083- 9 Your PO # 17463 Part # OFFERING\*\*\*\*\*\*\*\*\* Rel # ALUMINUM FLAT BAR 6061-T6511 2.00" x 2.50" X 144.0000" Heat Number Tag No C7331164 88408 Quantity PCS 12 FT 1 Quantity Wt LBS 10) Our Order PEC-472083- 10 Your PO # 17463 ALUMINUM ROUND BAR 6061-T6511 Heat Number Tag No Quantity PCS Wt LBS 200216020 88409 24 FT 2 23 1.00" DIA X 144.0000" 11) Our Order PEC-472083- 11 Your PO # 17463 ALUMINUM ROUND BAR 6061-T6511 3.50" DIA X 144.0000"

Page: 2 ....Continued

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE
RAPPORTÉES IMMÉDIATEMENT.
ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT.
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

2 5 *J*UIL. 2012

BILL OF 'LADING No: PEC 777693 Ship Date 23Jul12 at 10:57 From PFW Ship From: THYSSENKRUPP MATERIALS NA Probill 2821 LANGSTAFF ROAD Via VIM TRANSFER CONCORD, ONTARIO L4K 5C6 Tel: 905 669 9444 Fax: 9057389033 . FOB CONCORD Frt PREPAID Route 0- 0 Manifest Vhcle Trailer Slp STAN IVERS (905-532-1350) Sold To: (20115) Ship To: DART AEROSPACE DART AEROSPACE BILL OF LADING Heat Number Tag No 21112151 88410 Quantity PCS 12 FT 12) Our Order PEC-472083- 12 Your PO # 17463 ALUMINUM SHEET 6061 T6 .0810 Nom X 48.0000" X 144.0000" **Q**uantity Heat Number Tag No 25872/01/00 88035 PCS 25872/01/00 96.00 SFT 105 13) Our Order PEC-472083- 13 Your PO # 17463 ALUMINUM SHEET 6061 T6 .1250 Nom X 48.0000" X 96.0000" Quantity PCS Heat Number Tag No 88036 64.00 SFT 30286/01/00 14) Our Order PEC-472083- 14 Your PO # 17463 Part # PLATE ASTM B 209 QQ-A-250/12 Rel # ALUMINUM PLATE 7075T7351 2.50" THICK X 3.2500" X 72.0000" \*\*\* BACK ORDER \*\*\* PCS Tags LBS TOTAL: 2151 2.6 \*\*\* Chemical Analysis \*\*\* Heat Number 201209117 201210006

Heat Number 201209117 201210006 201210303 21112151 245298 25872/01/00 30286/01/00 HK079 712 SF29688 Z00216020

Page: 3 ....Continued

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE RAPPORTÉES IMMÉDIATEMENT.

ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

/25 JUK. 2012

LADING PEC 777693 BILL O F No: Ship Date 23Jul12 at 10:57 From PFW THYSSENKRUPP MATERIALS NA Probill 2821 LANGSTAFF ROAD VIM TRANSFER Via CONCORD, ONTARIO L4K 5C6 FOB CONCORD Tel: 905 669 9444 Fax: 9057389033 Frt. PREPAID Route 0- 0 Manifest Vhcle Trailer Slp STAN IVERS (905-532-1350)

Ship To: DART AEROSPACE

Ship From: \*

Sold To: (20115)DART AEROSPACE

\_\_\_\_\_\_\_ BILL 0 FLADING

Z00240017 Z00248009

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR TO SHIPPING.

ATTN: CHANTAL/LINDA

\*\* ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER \*\*

\*\* REFERENCED ON IT \*\*

TOTAL 1 BDL, 2 SKIDS GW. 2477 LBS

\*CUSTOMER PICK-UP HRS AT THYSSENKRUPP MATERIALS NA CONCORD, ONT.\* \* \* \* 9:00 AM TO 4:00 PM \*\*\*\* TEL. 800-926-2600 \*\*\*\* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* WE STOCK STAINLESS STEEL PLEASE LET US QUOTE YOUR NEXT REQUIREMENT \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \*\*\*PLEASE NOTE A \$25.00 ENERGY SURCHARGE WILL BE ADDED TO EVERY ORDER. \*\*\*

Page: 4 .... Last

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE RAPPORTÉES IMMÉDIATEMENT. ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT. MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER

2 5/JUIL, 2012

STAINLESS STEEL SQ BAR 303 STAINLESS 1.00" X 151.0000" PART NO.

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

$C_{\ell}$	ertifi	cate	Λf	Mill	<b>Test</b>	Res	ults
		caic	VI.	TATTER	ICOL	TICO	$u_1w$

BL PEC-777693-001

23Jul12

Pg 1/1 Signed by:

# Acciaierie Valbruna s.p.A.





**CERTIFICATO DI COLLAUDO ABNAHMEPRUEFZEUGNIS INSPECTION CERTIFICATE** CERTIFICAT DE RECEPTION EN 10204 (2005), 3.1

36100 VICENZA (Italia) - Viale della scienza, 25 z.i. Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4

Cilente / Bostel et/Puro\*eser/Client VALBRUNA CANADA LTD 8724 HOLGATE CRESCENT CON-MILTON, ONT L5T 5Z1-CAN

Produttors: ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: 705001820 STOCK Bestell/Your order/Commande

Certificato nr: MEST576706/2008/

Conferma ordine nr: El07004722 Werke/Dur Order/Raf nr.

Marchio di Fabbrica: Keichen das L sternwerkes Trade mark Sigle de l'usine produzice

AMS 5640 U TYPE1 A



Tipo di Elaborazione: E+AOD Erachme zungearsMolding process/Mode d'ale

Avviso di Spedizione: D-VI08000486 Listoranzeigo/Packing Ket/B.L.

Punzone del Co laudatore: Scorpol dos Werkseachverständigen Inspectra's etemp. Poisson de l'assey et d



Oggetto Prove: - Annealed Cold Drawn Prügegenstand/Item Inspected/Firespece

Specifiche: Antarden.ngen./Requirements/Exigences VSI 0 303 A,CF ASME SA320 2004 B8F o ASTM A370 2007A QQ-S-764 B/2 303 A (0) SEC.II PT.A 2004 EDITION ADD,2006 (1) Chemical analysis only.

AMS 5640 U S30300 A ASTM A314 97 S30300 ASTM A582 2005 \$30300 A

ASTM A320 2007A B8F (1) MIL-S-862 B/1 303

OChemical analysis only.

Qualitá: T-303

Marca: VPAU188Z VALPLUS

Punzonalura: T-303

	-				·			
	Oggetto Gegenstand Product description Descrip, du produit	D'mensioni - In Abnesausper Bimension Dimension	Tolleranza Tolleranza Alicwance Tolerance	Lunghezza - Ft Large Length Languou:	Colata Schmelze Heat Coulée	Pezzi Stückzehi Peces Peces	Peso - LB Gewicht Weight Poids	Lotto nr. Lozre. Let ir. Lot ir.
0060	Square	1,0000 x 1,0000	484-06B	13 / 13	245298		1.790	706701180

Sono state soddisfatte tutte le condizioni richieste SOMO Status SUKRASSERIUS (UNIC) TO COMMISSION PROFITED IN Ele geacellon Auforcesungen sind 1. Anlage effalts The materials has been furrished in accordance with the requirements Ly material à site trouvé conforme aux exigences.

Centrollo antimescolanza: OK Verwechstungerütung: spectralans Antimixing testing performed: GK Contrôle antimielunge latt: r.a.s.

Controllo visivo e dimensionale: soddis'a le esigenze: Bestratgure una Ausmaceurg ohne Boanetandung Visual inspection and dimensional checks satisfacony Controllo visual of dimensional checks satisfacony

TEST	Provetta/Indeedah Specinon/Eprovetta Larg ribert Spirits Staffo Claim. Dipos Width Diam. Thickness Larg, diam spels MIM	۰F	Posiz. Saggio Futuraça Lumina Empleorement	Snervamenta Stecoprese Visid Stress I min stericus Rp 0,2% k.s.i.	Snervamento Steckgrees Yeld Stras Limite etaelique	Resistenza Zuglestonell Ter she altergith Resistance à traction Rm K.S.I.	Ersula Elen	Amento Administr gadon core-ri E 4d	Einadi Recycle	zione withing on or arms chost FIA	Next Irup	Silienza chagatet ant Value 1980nce		Hearte Hardrese Dunke HB	
Anfunder	ori richiesti 1 ungen/Requiac vidues euri samandosi	mi ma		-	•	•	-	-	-	•		-		140 255	
A	12,5	68	L	80		102		37	Ī	50			242		

Grain size for ASTM E112

#### Analisi chimica

										400					
Colala /Heat Schmelze/Goviès	min - max 0,150	1,00	1,50 2,00	17,00 19,00	0,30	1,00	8,00 10,00	:		0,25 0,35	0,40	:	:	:	-
245000	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	Р%	S%	Zr %	1			
245298	0,053	0,47	1,79	17,24	0,38	0,71	8,13	0,10	0,029	0.28	0,01		ľ	i	

Produced without class I-II Ozone depleting substances.

Solution heat treated free from continuous carbide network.

Annealing temperature: 1940°F for 1h/water.

Micro and macro etch test; OK Material is DFARS Compliant

Melted and manufactured in Italy No welding or weld repair Mater al free from Mercury or radio-activity contamination The Quality Management System is Certified ecc. Pressure Equipment Directive [97/23/EC] Annex 1.s., 4.3 by TUEV and LLCYD'S

Vicenza,14/01/08 vcoose (Mod. MCER)	# collaudatore di stabilimento / der Werkssachverständige/ Works; inspector / L'agent d'usine M. Rizzottig (F. U.K.).	Pagina - 1 di 1
-------------------------------------	--	-----------------

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511 .50" x 1.250" X 144.0000" PART NO. PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate	of Mill	Test	Results
Ceruncate	THE STREET	1 621	Treamin

BL PEC-777693-003

23Jul12

Signed by:\_\_\_\_\_\_ Pg 1/2

# KAISER ALUMINUM FABRICATED PRODUCTS



## **CERTIFIED TEST REPORT**

http://Online.KaiserAluminum.com

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO. MI 49048

CUSTOMER PO NUMBER:		CUSTOMER PAR	RT NUMBER:	PRODUCT DESCRIPTION	l:	
PEC-236648-4		ALREC0013	39	0.500 X 1.250 SQ	COR RECT B	AR
KAISER ORDER NUMBER:	LINE ITEM:	SH	IIP DATE:	KAISER LOT NUMBER:	ALLOY:	TEMPER:
612835	004	02	2/03/2012	Z00248009	6061	T6511
WEIGHT SHIPPED:	QUANTITY:	B/I	NUMBER:	DIAM/DAF/THKNS:	WIDTH:	LENGTH:
494.000 LB	56.000 P	cs  60	2545			12.000 FT
SHIP TO:				SOLD TO:	•	
THYSSENKRUPP N 2821 LANGSTAFF I CONCORD, ON L41	ROAD			THYSSENKRUPP 2821 LANGSTAFF CONCORD, ON L	ROAD	

### **Actual Physical Properties**

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARI	NESS	CONDUCT.	BEND
Z00248009	0001	1	45.9	43.1	15.5	RE	91	N/A	N/A
Z00248009	0001	2	47.0	44.1	16.2	RE	92	N/A	N/A
200248009	0001	3	46.5	43.6	17.1	RE	94	N/A	N/A
200248009	0001	4	47.1	44.5	17.1	RE	91	N/A	N/A
200248009	0001	5	46.5	43.8	16.5	RE	88	N/A	N/A
200248009	0001	6	46.0	43.0	17.9	RE	94	N/A	N/A
200248009	0001	7	45.6	42.3	15.9	RE	93	N/A	N/A
Z00248009	0001	8	46.2	43.3	16.1	RE	91	N/A	N/A
Z00248009	0001	9	46.5	43.7	17.9	RE	93	N/A	N/A

# Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NА	NA	NA	0.05	C.15
Minimum	0.40	0.00	0.15	0.00	0.80	J.C4	0.00	0.00	NA	NA	NA	0.00	C.00
101084	.73	. 37	.29	.08	.94	.10	.08	.03	.00	.00	.00	.01	.03

## Applicable Requirements:

### Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA

DAS 14 289 12/07/27

Plant Serial: 00028007

Kaiser Order Number: 612835

Line Item: 004

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511 .50" x 1.250" X 144.0000" PART NO. PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

	Certificate	of	Mill	<b>Test</b>	Results
--	-------------	----	------	-------------	---------

BL PEC-777693-003

23Jul12

\_\_\_\_\_ Pg 2/2





### **CERTIFIED TEST REPORT**

Signed by:

http://Online.KaiserAluminum.com

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048

#### CERTIFICATION

Kaiser Aluminum Fabricated Products, LIC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Page 2 of 2

Alex Yeh, Quality & Technology Manager

MK.KS

Plant Serial: 00028007 Kaiser Order Number: 612835 Line Item: 004

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511 1.00" x 4.00" X 144.0000" PART NO.

#### PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate	Ωf	Mill	Test	Resu	lte
Cuman	VI.	LVEREE	1636	IXCSU	LUJ

BL PEC-777693-006

23Jul12 Pg 1/1



#### SERVICE CENTER METALS 5850 Quality Way Prince George, VA 23875

## **CERTIFIED INSPECTION REPORT AND TEST RESULTS** FOR EXTRUDED PRODUCTS

Signed by:

OUR ORDER NUMBER 152409 3

BILL TO

ThyssenKrupp Materials NA

ThyssenKrupp Materials NA PEC

**Quantity Certified** 

1,482 lbs

26pcs

MANIFEST NUMBER

CUSTOMER PART NUMBER

CUSTOMER PO

162248

PEC-239753

**RB0128** 

RB0128

6061-T6511

SCRB 1.000x4.000

DIE NUMBER

ALLOY/TEMPER

DESCRIPTION

DATE OF SHIPMENT

6/19/2012

SALESPERSON

David Schroeder

CERTIFICATION

ASTM-B221-12 StencilContinuous

SPECIFICATION

AMS-QQA-200/8-07

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the meet the requirements of 6061-T6 description, and that samples representative of the material met the composition limits and had the mechanical properties shown. SCA

Items produced and certified as 6061-T6511 also

extrusions are manufactured in the USA.

Mechanical Properties Test Date Ultimate l'ensile Yield Strength Percent Strength (KSI) (KSI) Elongation **Tests** Lot No. 201210303 50.2 06/12/12 46.9 14.9

Chemical Con	position fo	r Alumir	um All	oy 606	1 ]								<del>.</del>
Cast Number	Alloy	<u>S</u> i	<u>Fe</u>	<u>Cu</u>	<u>Mn</u>	Мg	<u>Cr</u>	<u>Zn</u>	<u>Ti</u>	AL	Otho <u>Each</u>	ers <u>Total</u>	Melt Source United States of America
0512135	6061	0.73	0.38	0.31	0.09	0.84	0.09	0.07	0.02	97.47	0.05	0.15	

Calvin J. Wingins Director of Quality & Technical Services

Print Date: 6/19/2012

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511 1.50" x 2.00" X 144.0000" PART NO.

#### PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate	of	Mill	Test	Results
Cumulate	U.	TATEL	1030	IXCOULG

BL PEC-777693-008

23Jul12 Pg 1/1



#### SERVICE CENTER METALS 5850 Quality Way Prince George, VA 23875

## **CERTIFIED INSPECTION REPORT AND TEST RESULTS** FOR EXTRUDED PRODUCTS

Signed by:

OUR ORDER NUMBER 152110 12

BE L TO ThyssenKrupp Materials NA

ThyssenKrupp Materials NA PEC

32 pcs

MANIFEST NUMBER 161536 CUSTOMER PO PEC-239616

DESCRIPTION

6/8/2012 RB0138 ALLOY/TEMPER SALESPERSON 6061-T6511

DATE OF SHIPMENT

David Schroeder

ASTM-B221-12 StencilContinuous

SPECIFICATION

CERTIFICÄTION

AMS-QQA-200/8-07

**Quantity Certifled** 

1,369 lbs

CUSTOMER PART NUMBER **RB0138** 

SCRB 1.500x2,000

DIE NÜMBER

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification Items produced and certified as 6061-T6511 also revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the meet the requirements of 6061-T6 description, and that samples representative of the material met the composition limits and had the mechanical properties shown. SCA extrusions are manufactured in the USA.

Wecha	nical Properties		Test Date	Ultimate Tensile	Yield Strength	Percent
Tests	Lot No.			Strength (KSI)	(KSI)	Elongation
91	201209117	•	05/25/12	51.5	49.2	14.9
92	201209117		05/25/12	49.9	46.8	15.1
93	201209117		05/25/12	49.2	46.4	15.6
94	201209117	$\mathcal{V}$	05/25/12	49.1	46.0	16.8
95	201209117	$\mathcal{A}$	05/25/12	49.3	46.7	15.2
96	201209117	The state of the s	05/25/12	49.3	45.9	15.3
		OAS 1 3				
		8-89				

Chemical Con	nposition fo	r Alumir	um Ali	oy 606	1	11220		<u></u>					
Cast Number	Alloy	<u>Si</u>	<u>Fe</u>	<u>Cu</u>	<u>Mn</u>	Мg	<u>Cr</u>	<u>Zn</u>	<u>Ti</u>	<u>AL</u>	Oth <u>Each</u>	ers <u>Total</u>	Melt Source: United States of America
031424	6061	0.77	0.38	0.35	0.11	0.91	0.09	0.06	0.02	97.31	0.05	0.15	
032224	6 <b>06</b> 1	0.72	0.38	0.30	0.09	0.86	0.09	0.06	0.02	97.48	0.05	0.15	
032725	6061	0.74	0.36	0.32	0.10	0.84	0.09	0.08	0.02	97.45	0.05	0.15	

Print Date: 6/8/2012

DART AEROSPACE

ALUMINUM ROUND BAR 6061-T6511 1.00" DIA X 144.0000" PART NO. PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certifica	ite o	f Mill	Test	Recults
Cerunca	แยง	LIVELL	1621	Vesairs

BL PEC-777693-010

23Jul12

Signed by: Pg 1/2





### **CERTIFIED TEST REPORT**

http://Online.KaiserAluminum.com

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048

CUSTOMER PO NUMBER	ι.	CUSTOMER PART NUMBER:	PRODUCT DESCRIPTION:							
PEC-239097-5		015246-2	KAISERSELECT	KAISERSELECT PRECISION ROD 1.000+/004						
KAISER ORDER NUMBER	R: UNE ITEM:	SHIP DATE:	KAISER LOT NUMBER.	ALLOY:	TEMPER:					
620138	005	05/11/2012	Z00216020	6061	T6511B					
WEIGHT SHIPPED:	QUANTITY:	B/L NUMBER:	DIAM/DAF/THKNS:	WIDTH:	LENGTH					
2922.000 LB	264.000 P	CS 603400			12.000 FT					
SHIP TO:			SOLD TO:							
THYSSENKRUPP 2821 LANGSTAFF CONCORD, ON L	ROAD	,	THYSSENKRUPF 2821 LANGSTAF CONCORD, ON I	FROAD						

## **Actual Physical Properties**

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARI	NESS	CONDUCT.	BEND
Z0021602C	0001	1	51.2	49.0	16.9	RE	94	N/A	N/A
Z0021602C	0001	2	50.9	48.6	16.3	RE	93	N/A	N/A
Z0021602C	0001	3	50.7	48.6	16.9	RE	93	$N/\Lambda$	N/A
Z0021602C	0001	4	50.1	47.4	15.8	RE	93	N/A	N/A
Z0021602C	0001	5	51.1	48.9	16.6	RE	94	N/A	N/A
Z0021602C	0001	6	51.6	49.3	16.4	RE	94	N/A	N/A
Z0021602C	0001	7	51.2	48.9	17.3	RE	95	N/A	N/A
20021602C	0002	1	49.7	47.2	17.4	RE	94	N/A	N/A
Z0021602C	0002	2	49.6	47.0	16.6	RE	95	N/A	N/A
Z0021602C	2002	3	50.1	47.9	15.7	RE	94	N/A	N/A
Z0021602C	0002	4	50.3	47.9	16.9	RE	94	N/A	N/A
Z0021602C	0002	5	49.5	47.9	16.9	RE	93	N/A	N/A

## Chemical Composition (wt%), Aluminum Remainder

LIMITS	Sí	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
101538	.72	.32	.28	.09	.95	.09	.05	.03	.00	.00	.00	.01	.03

### Applicable Requirements:

PER ASTM-B221-08, STENCILED ASME-SB221 1998 SECT II PER AMS-QQ-A-200/8 UNS# A96061 MEETS ALL SPECIFICATION REQUIREMENTS FOR 6061-T6511/T6 ELEVATED MINIMUM MECHANICAL PROPERTIES AS FOLICWS: UTS = 42.0 KSI MIN YIELD - 38.0 KSI MIN ELONGATION = 10.0% MIN

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA

DAS 2/07/27

Plant Serial: 00043535 Kaiser Order Number: 620138

Line Item: 005

Page 1 of 2

DART AEROSPACE

ALUMINUM ROUND BAR 6061-T6511 1.00" DIA X 144.0000" PART NO. PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

## **Certificate of Mill Test Results**

BL PEC-777693-010

23Jul12

Signed by:\_\_\_\_\_\_ Pg 2/2





#### **CERTIFIED TEST REPORT**

http://Online.KaiserAluminum.com

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048

#### CERTIFICATION

Kalser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kalser's sales acknowledgement form. Any warranty is limited to that shown on Kalser's general terms and conditions of sale. Test reports are on file, subject to examination.

Page 2 of 2

Alex Yeh, Quality & Technology Manager

WK

Plant Serial: 00043535 Kaiser Order Number: 620138

Line Item: 005

DART AEROSPACE

ALUMINUM SHEET 6061 T6 .1250 Nom X 48.0000" X 96.0000" PART NO. PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

## **Certificate of Mill Test Results**

BL PEC-777693-013

23Jul12

\_\_\_ Pg 1/2

(A)



Abnahmeprüfzeugnis 3.1 (EN 10204) Inspection certificate – mill certificate

Zertifiziert nach / certified to ISO 9001, ISO/TS 16949, EN/AS 9100, ISO 14001, NADCAP

Nr.: 85283529 06/9

Rev. 0

Signed by:\_\_

Seite / page: 1 von / of 2 Datum / date: 2012 04 11

Auftraggeber / customer: ThyssenKrupp Mater als NA	Bestell Nr. / order no.; Datum / date:	PEC-237401 2012 03 05
2821 Langstaff Rd CDN-L4K 5C6 CONCORD,ON	Auftragsbost. Nr. / order confirm. no.: Datum / date:	638423 2012 03 06
Warenempfänger / consignee: ThyssenKrupp Materials NA	Lieferschein Nr. / delivery note: Datum / date:	85283529 2012 04 30
2821 Langstaff Rd CDN-L4K 5C6 CONCORD,ON	Akkreditiv Nr. / letter of credit no.:	
Endkunde, Bestell-Nr. / Your cust., ord. no.:		

Produkt/product	Bedingungen/terms
Form / form; Sheet Werkstoff / material; 6061 Zustand / temper; T6 Dim. / dim: [inch]; 0,125x48,00x96,00 Kundenartikel-Nr / customer article no.;	Techn. Lieferbedingungen / techn. spec.: AMS-QQ-A-250/11, 08.1997 ASTM B 209 - 07 Material meets also the mech. properties of AMS 4027N, 07.2008, but not marked ANSI H35.2-2009 ASME SB 209, 2007
	Sondervorschrift / special terms:

AB-Pos. ordItem.	BNr/Los/Teillos Lot/No./Part	Guss Nr. cast no.	Werkstoff material	Kollo packno.	Gewicht netto weight net	Stk. pcs.
04	30286/01/00	01/0049556/2	6061.1	6384230007	4003,527 lbs	73
04	30286/01/00	01/0049556/2	6061.1	6384230008	4001,323 lbs	73

Chemische Zu	sammensetzung /	chemic	al comp	osition	: [%] Ge	wichtsa	nteile / w	reight pr	oportion	(OES)	
Guss Nr. / cast no.	AMAG designation	1							<del></del>		
01/0049556/2	6061.1	Si	Fe	Cu	Mn	Mg	Cr	NI	Zn	п	ĺ
	actual	0.68	0,43	0,26	0,12	0,93	0,18	0,01	0,05	0,06	

BNr/Los Lot/No.	Zustand temper	Richtung direction	Rm [ksl]	Rp0.2 [ksl]	A2" [%]		
30286/01	Т6	LT	47,4	41,0	15		
30286/01	T6	LT	47,1	40,6	14		
30286/01	T6	LT	47,1	40,6	14		
30286/01	T6	LT	47,1	40.8	14		
30286/01	T6	LT	47,0	40,3	16		
30286/01	T6	LT	47,0	40,3	15		·
30286/01	T6	LT	47,1	40,5	15		
30286/01	T6	LT	47,4	40.6	15		-+
30286/01	T6	LT	47,9	41,0	15	<del></del>	

AMAG rolling GmbH, Postlach 32, A-5282 Ranshofen, Österreich — <a href="https://www.amag.at.amag.rolling-gmbH">www.amag.at.ama



DART AEROSPACE

ALUMINUM SHEET 6061 T6 .1250 Nom X 48.0000" X 96.0000" PART NO. PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate	C N Z*11	m - 4 D -	14
atentificate )	AT IVIDII	I PCT K	SCILITS:
Celtificate	CAL TATELL	T COL III	$\omega$ ulu

BL PEC-777693-013

23Jul12

Pg 2/2

	AMAG Rolling
--	-----------------

Abnahmeprüfzeugnis 3.1 (EN 10204) Inspection certificate – mill certificate

Zertifiziert nachiz centified to ISO 9001, ISO/TS 13949, EN/AS 9100 ISO 14001, NADCAF

Nr.:

85283529 06/9

Rev. 0

Signed by:\_

Seite / page: 2 von / of 2

Datum / date: 2012 04 11

Es wird bestätigt, dass die Lieferung geprü't wurde und den Vereinbarungen bei der Bestellung entspricht. We hereby certify that the material described above has been tested and complies with the terms of the order contract.

Werkssachverständiger / factory specialist	E-Mail / e-mail
Josef Klampfer	j.klampfer@amag.at

Herstellerland: Österreich / goods origin: The goods are of Austrian origin. Maschinell erstellt - Gültig ohne Unterschrift / Automated - valld without being signed.

AMAG rolling GmbH, Poetfach 32, A-5282 Ranshofen, Österreich – <a href="https://www.amac.at/amag.colling-gmbH">www.amac.at/amag.colling-gmbH</a>, P.O. Box 32, A-5282 Ranshofen, Austria – <a href="https://www.amag.at/amag.a

DART AEROSPACE

STAINLESS STEEL SHEET 304-2B .1200 Nom X 48.0000" X 120.0000" PART NO.

#### PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

$\Gamma$	ortific	ate of	Mill	Test	Results
◡	CI UIIC	aw vi		1030	Treaming

BL PEC-777693-002

23Jul12 Pg 1/1

	N
.—	74
19AC	70
14	10
9-89	1
<b>J</b> -	$\sim$
	~

Signed by:

#### 产品质量证明书 MILL TEST CERTIFICATE

江苏大明金属制品有限公司 RANGSU DAMING METAL PRODUCTS CD.(TD RANGSU DAMING METAL PRODUCTS CD.(TD

MANGON DAMING METAL (MARING IS CO\_127)。 性社、工物の法定大道1518号 ADDETS 5-VO 1-518 TUMTO 6 MG MO 18 PO 17 (2018)

ATTREES NO 1514, TONGRANG ROAD WUXE ROAD HANDSUPROCTURE, CTOMA 16). : STORRESEDS

in : minethioletita.

			T	7	* A A *	<del>,</del>	<del>                                     </del>		1	- 按押证	<b>1</b>	Τ	T		Υ			化學	展 分			
				Pi	odura Sr	Z#*	EA			Tensile	Tost	表底		,			Chen	nical Corr	ibosition (	%)		
小号 plo	Γ≀uduct No.	Resp Type	表酶加工 Surface Finished	原度 Thickness MM	文文 Width MM	光規 Length MM	NET Weight KG	标准 Specification	基件符 提 RcC.2/ Mpa	抗拉特 使 Rind Mpa	A 军代廷 张	硬度 Heroness HV/HRB	编奏者STEEL NO.	炉号 HEAT NO.	С	SI	Мn	P	\$	Ni	Cr	N
1	P001693080	304	28	0.5	1219	2428	910.64	ASTM A240	275	731	65	167	QWA0136C	SF25811	0.0510	0.5060	1.9820	0.0321	0.0057	8.02	1826	
3	P001683981	304	20	0,5	1218	3048	908,08	ASTM A240	275	731	65	167	QWAR130C	SF28811	0.0510	0.5060	1.0620	0.0321	0.0067	802	18.26	
.1	P0017 (5073	304	28	0.6	1219	3048	60.00	ASTM A246	270	731	εω	157	OW63401B	SF29409	0.0468	0.5120	1.0540	0.0208	0.0064	5.02	18.32	
4	P001683219	304	26	16	1210	2438	1813 74	ASTM A240	273	602	62	163	C%Y820780	SF38003	0.0378	0.4480	1.0270	0.0186	0 0022	8.05	18.17	$\vdash$
9	P001693220	304	รถ	î <b>5</b>	1219	3048	1031 40	AGTM A240	273	692	62	r63	OVY320768	SF30003	0.0376	0.4480	1.0270	0.0185	0.0022	805	18 17	
6	P001683221	301	29	1.5	1219	3048	918,74	ALTM A240	273	087	122	15.8	GW32070B	SF 30003	0,0378	0.4490	1,0270	0.0186	G.0022	8.05	18.17	1
7	P00:729563	304	25	2.0	1219	3046	930 68	ASTM /(240	293	70%	58	173	AEEEOZVID	SF28445	0.51-28	0,1720	1 0360	0.0400	0.0051	806	18,17	
ŝ	POUI594263	304	20	30	1219	2438	1400.60	'ASTM A240	201	(reid	61	175	GU80403A	SF29688	0.0504	0.4510	1.1420	0.0343	U.DG34	805	18,44	
9	P001684295	304	28	30	1219	3048	14F7 64	ASTM A240	201	663	61	175	CH80403A	SF20688	0.0564	0.4610	1.1420	0,0343	0.6034	8.05	18 14	1
-3	10001705088	304	22	30	1219	2438	1408 38	ASTM A240	287	714	55	174	QUC0223A	SF30003	0.0578	0,4480	1.0270	0.0156	0.0022	€,Ω5	18.17	1
21	P001705121	304	26	2.5	1219	3048	1363,94	AS1M A240	287	714	55	174	QUC0023A	SF30003	0.0378	0,4480	1,0270	0.0156	0 0022	8 05	18.17	
.5	PG01699782	364	NO 6+	1,5	1219	2435	1935,45	A3TM A240	267	564	59	164	CNYCD1613	SF30027	0.0476	0.5270	1,0650	0.0306	9.0049	8 D4	19 22	-
1.3	HAD1693769	364	NSC) ++	1.5	1219	3048	1978 56	A3TM A240	267	554	59	164	CMCC 1618	SF30027	0.0476	C 5270	1.0650	0.1306	0.0000	3.D-1	15.22	
٠,	P5011595755	304	NO 4+	20	1219	2438	1983 60	ASTM A240	315	C47	53	83	KA11234670A10	C3109695	0.0400	0,4500	1.0900	0.0300	0.0010	6.1	18 21	0.0
:5	P001703038	304	NO ne	2.5	1219	2438	1070 30	ASTM A24D	267	714	\$5	174	QUC0023A	SF30003	0.0378	2,4480	1 0270	0.0186	0.0022	8.05	18 17	H
15	P001703037	304	NO 64	25	12:19	2435	1870 30	AS1M A240	207	714	55	174	OURCEO23A	SF30003	0.0378	0.4400	1.0270	20188	0.0022	B 05	13.17	├-

THE SEMESTER OF

Six and Statute Engerment

AND THE PRINCES, MALLINES FRANCES LOCALE BUT EXIL ACCUPANCE DESCRIPTIONS OF REAL WAY THROUGH SHEEK COMMISSIONS OF THE

WE HEREBY CERTIFY THAT THE MATERIAL HERES HAS BEEN THAT SHOW AND SPECIFICATION 上田 2000 HANGS NAVOK UFTAL DUNNING TO A TREE CHARGES HAS BEEN THAT SHOW AND THE PROPERTY OF A TREE CHARGES HAS BEEN THAT THE PROPERTY OF A TREE CHARGES HAS BEEN THAT THE PROPERTY OF A TREE CHARGES HAS BEEN THAT THE PROPERTY OF A TREE CHARGES HAS BEEN THAT THE PROPERTY OF A TREE CHARGES HAS BEEN THAT THE PROPERTY OF THE PROPERTY O

		Manager of the second of the
100		
4		
		*
3		·
·* ].	•	· ·
1		
1		
1		
,		
2		
	<b>H</b>	
. 1		
1		
45		
-		
1		
-		· ·
1		
,		
8		i i
. [		
1		
* 5		
***		
1		1
7.		
1		
100		
X		
		1
2.0		
,		
		. 1
`:		
1		
5.6		

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511 .50" X 6.00" X 144.0000" PART NO.

BILL TO

#### PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

	Certificate	of	Mill	<b>Test</b>	Result	S
--	-------------	----	------	-------------	--------	---

BL PEC-777693-004

23Jul12 Pg 1/1



#### **SERVICE CENTER METALS** 5850 Quality Way Prince George, VA 23875

## **CERTIFIED INSPECTION REPORT AND TEST RESULTS** FOR EXTRUDED PRODUCTS

Signed by:

152	110	6	
CERTIFICATION			
ASTM-B221	12 Stencil C	Continuous	

ThyssenKrupp Materials NA

CUSTOMER PO PEC-239616 CUSTOMER PART NUMBER

MANIFEST NUMBER

ALLOY / TEMPER 6061-T6511 DESCRIPTION

PL0102

DIE NUMBER

David Schroeder

6/14/2012

DATE OF SHIPMENT

SALESPERSON

SPECIFICATION AMS-QQA-200/8-07

DUR ONDER NUMBER

ThyssenKrupp Materials NA PEC **Quantity Certified** 1,143 lbs

27 pcs

PL0102 We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification

161978

PL .500x6.000

Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6

revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. SCA extrusions are manufactured in the USA.

lest Date	<u>Ultimate Tensile</u>	Yield Strength	Percent
	Strength (KSI)	<u>(KSI)</u>	<b>Elongation</b>
•			
06/09/12	49.1	47.0	14.5
06/09/12	50.8	48.5	15.0
	06/09/12	Strength (KSI) 06/09/12 49.1	Strength (KSI)         (KSI)           06/09/12         49.1         47.0

Chemical Composition for Aluminum Alloy 6061 Others Cast Number Alloy <u>Si</u> Fe Cu Melt Source: Mn Cr Ti Μq Zn <u>AL</u> Each <u>Total</u> United States of America 060421 6061 0.74 0.37 0.33 0.10 0.90 0.09 80.0 0.02 97.37 0.05 0.15

Calvin J. Wiggins. Director of Quality & Technical Services

Print Date: 6/14/2012

DART AEROSPACE

ALUMINUM SQUARE BAR 6061-T6511 1.250" X 144.0000" PART NO. PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Result	Certif	ficate	of Mill	<b>Test</b>	Results
---------------------------------	--------	--------	---------	-------------	---------

BL PEC-777693-007

23Jul12

\_\_\_\_\_ Pg 1/2

KAISER	7
ALUMINUM	7
FARRICATED PRODUCTS	



### **CERTIFIED TEST REPORT**

http://Online.KalserAluminum.com

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048

CUSTOMER PO NUMBER	t:	CUSTOMER P.	ART NUMBER	PRODUCT DESCRIPTION:						
PEC-240344-2		ALSQ0010	00	1.250 SC SQ BAR						
KAISER ORDER NUMBER	R: LINE ITEM:	<u> </u>	SHIP DATE:	KAISER LOT NUMBER	ALLOY.	TEMPER:				
623482	002		07/06/2012	Z00240017	6061	T6511				
WEIGHT SHIPPED:	QUANTITY.		B/L NUMBER:	DIAM/DAF/THKNS:	WIDTH.	LENGTH:				
1058.000 LB	48.000 P	CS 603828				12.000 FT				
SHIP TO.				SOLD TO:	'					
THYSSENKRUPP 2821 LANGSTAFF		S NA		THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD						
CONCORD, ON L4K 5C6 CANADA				CONCORD, ON L4K 5C6 CANADA						

Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARI	DNESS	CONDUCT.	BEND
200240017	0001	1	52.8	50.5	16.6	RE	93	N/A	N/A
200240017	0001	2	51.6	49.0	17.8	RE	93	N/A	N/A
Z00240017	0001	3	51.9	49.4	17.5	RE	94	N/A	N/A
200240017	0001	4	52.9	50.7	16.2	RE	93	N/A	N/A
200240017	0001	5	52.5	50.1	17.9	RE	94	N/A	N/A
200240017	0001	6	51.4	49.0	17.7	RF	94	N/A	N/A

# Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1,20	0.35	0.25	0.15	NA	NΆ	NA	0.05	0.15
Minimum	C.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NΑ	NA	0.00	0.00
101758	. 67	.26	.24	.09	. 92	.09	.02	.03	.00	.00	.00	.01	.03

## Applicable Requirements:

ASTM-B221-12 STENCILED ASME-SB221 1998 SECT II AMS-QQ-A-200/8 (2007) UNS#A96061 (T6511 also conforms to T6-not applicable to other tempers)

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA

UAS 12/07/22

Plant Serial: C0050003 Kaiser Order Number: 623482

Line Item: 002

Page 1 of 2

DART AEROSPACE

ALUMINUM SQUARE BAR 6061-T6511 1.250" X 144.0000" PART NO. PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate	e of Mill	Test R	esults
Cei uncav	- OI IVIII	T COL II	COLLING

BL PEC-777693-007

23Jul12

\_ Pg 2/2

KAISER ALUMINUM FABRICATED PRODUCTS

THUM'S

### **CERTIFIED TEST REPORT**

http://Online.KaiserAiuminum.com

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048

#### CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Calvin Latting, Quality & Technology Manager

Plant Serial: 00050003 Kaiser Order Number: 623482 Line Itom: 002

Page 2 of 2

DART AEROSPACE

ALUMINUM ROUND BAR 6061-T6511 3.50" DIA X 144.0000" PART NO.

#### PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Sales Order Number

1100483665

1900

339465

Delivery ld

4330967

CustomerPart No. 3.5ER+

BAL

Quantity Shipped

Certificate	of	Mill	<b>Test</b>	Results

BL PEC-777693-011

23Jul12 Pg 1/2





Sapa Industrial Extrusions 53 POTTSVILLE STREET

CRESSONA, PA 17929-0187

Sapa Extrusions Inc., a Subsidiary of Sapa AB

Invoice To Customer

THYSSENKRUPP MATERIALS NA INC 2821 LANGSTAFF ROAD ATTN: ACCOUNT PAYABLE

CONCORD, ON - L4K-5C6

Ship To Costemer

THYSSENKRUPP MATERIALS NA INC

2821 LANGSTAFF ROAD

CONCORD, ON - 1.4K5C6

**Certified Inspection Report** 

LB

Line No.

Date Shipped

25-JUN-12

G03305626

Item No. Rev

Item No.

Cert Number Pege Page SAPA591092 Cert Creation Date Cert Print Date

25-JUN-12

25-JUN-12

Inf2

Specification ASTMB221 REV 12 AMS-QQ-A-200/8 REV ASMESB221 REV 09

UNS#A96061 REV SAEJ454 REV

Meets 6061-T6511H, 6061-T6511 REV

Applicable Specifications, Revisions and Exceptions

COMPOSITION NOTE: The values for 'Others Each' and 'Others Total' have met the limits as shown on

Customer P/O

PEC-240110-001

this certified inspection report. Remainder is Aluminum.

Legal Statement

We hereby certify that, unless otherwise indicated, the material covered by this report has been manufactured, inspected, and tested in accordance with, and has been found to meet, the applicable requirements described herein, including any specifications forming a part of the description and that samples representative of the material met the composition and had the mechanical properties shown on the face of this certification. Also, note that mercury is not a normal contaminant in aluminum alloys and neither it nor any of its compounds are used in the manufacture of our product. This certification is not to be reproduced in partial form without prior written approval of our Quality Assurance Dept.

Signature And Title

William T. Martin, III

Signed by:

Item Description ACC-U-LINE

SECT 500328

FIN M-MILL

6061/T6511H

144.000 IN LN

Extruded ACC-U-ROD

W/F 11.314 F 1 CS 3.5

Marking CONTINUOUS:

3.500 DIA +/-.012

Tech/Quality Manager

25-JUN-12

Quantities per Lot / Packages

Packago Number	Lat Number	Quantity	VОM	Weighi		
			-	Gruss	Net	
G12-PKC1711554	21112151	7	PCS	956	950	
G12-PKG1711554	2(1)2151					
G12-PKG1711554	2(1)2)51					
G12-PKG1711.558	2[1]2]5]	·· 7	PCS	956	950	

Composition Limits

ALUMINUM ROUND BAR 6061-T6511 3.50" DIA X 144.0000" PART NO.

#### PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Cer	ctifica	ite of	Mill	Test	Resu	lte
CU	unca	ແບບ		1621	1 <b>X</b> E5u	us

BL PEC-777693-011

23Jul12 Pg 2/2

sapa:	Sapa Industrial Extrusions 53 POTTSVILLE STREET -
	CRESSONA, PA

17929-0187

## **Certified Inspection Report**

Cert Number Page SAPA591092 Page 2 of 2 Cert Creation Date Cert Print Date

Sales Order Number Customer P/O Line Vo. PEC-240110-001 25-JUN-12 25-JUN-12 1100483665

Signed by:

ŗ	7.5	-X-5 - 1	Si :	F	e .	C	<b>u</b>	are M	Ín	1 ( ) 1 ( )	18	0.8 p. 0.5 13 <b>0</b>	207.7	2	Α
:	Alloyes	Mary Mr. 1				1. 14.1	-	ب دایان	Мат	Min				22 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A
j	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Min	Max	Min	Max	Min	Mex	. Ş⊶Min	Max	MIN	Max	MDa	Max	396n (***)	Mex:
ı	6061	0.40	0.80		0.70	0.15	0.40		0.15	0.80	1.20	0,04	0.35	_	0.25
	、より数数 シアルド		 	m	ır ;	, P	70 ·	Other	s Each .	Other	s Total				L
Į	Alloy	13	1.7.727	F 4 4 5		1 112	7 F 1					1			
1		Min	Max	Min	Max	Min	Max "	Min	Max	Min	Mux				
	t t 7.2.	**	1.51 1. 1.				-				S 14 5 11	,			
	6061		0.15		0.05		0.05		0.05		0.15				

#### Composition Results

Heat / Cast Si Fe	Cu	Mn	Mg	. 01	že .	n	Bi	Ръ	Others Each	Others Total
1028239 0.69 0.30	0.31	0.10	0.87	0.13	0.04	0.02		**		_

#### Mechanical Property - Test Limits

は、 をいっていました。 さった。 かった。 これを これできる。 これでは これできる。 これでは これできる。 これできる。 これできる。		Test Type		B-L	179	i-L	EL 40	-Long
		THE RESERVE		SI	K	SI	P	Cr Cr
		Table 7 4 of Test				•	-	•
Test Temper	Lot Number	of Testal	MIN And	MAX Value	MON WHOSE IS		NUN Value III	MAX Yello
T6511H	21112151	2	51.4	53.3	48.3	50.3	12.5	13.0

#### Cert Notes

Products manufactured with a T6511 temper also meet T6 temper requirements.

Yield strength has been determined by the 0.2% offset method

All Mill Finish Alluys produced at Sapa Extrusions comply with 0.4% Maximum Lead per RoHS, with the exception of 6262 alloy

In accordance with EN 10204 Inspection Certificate Type 3.1

Melted in the USA or Other Qualified Countries as Defined by DFARS 225.872.1

Made in USA

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511 .750" X 1.50" X 144.0000" PART NO.

PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate	of Mill	Test	Results
CCLINCAL	CAL TATELL	1000	TENORIM

BL PEC-777693-005

23Jul12 Pg 1/2

Signed by: P





### **CERTIFIED TEST REPORT**

http://Online.KaiserAluminum.com

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048

CUSTOMER PO NUMBER		CUSTOMER PART NUMBER:	PRODUCT DESCRIPTION	PRODUCT DESCRIPTION:					
PEC-239300-1 ALREC00806			.750 X 1.500 SC I	.750 X 1.500 SC RECT BAR					
KAISER ORDER NUMBER	LINE ITEM:	SHIP DATE:	KAISER LOT NUMBER:	ALLOY:	TEMPER:				
621011	001	05/25/2012	HK079 712	6061	T6511				
WEIGHT SHIPPED:	QUANTITY:	B/L NUMBER:	DIAM/DAF/THKNS:	WIDTH:	LENGTH:				
508.000 LB	32.000 PG	CS 603528			12.000 FT				
SHIP TO:			SOLD TO:	•					
THYSSENKRUPP 2821 LANGSTAFF CONCORD, ON L4	ROAD		THYSSENKRUPI 2821 LANGSTAF CONCORD, ON I	FROAD					

### **Actual Physical Properties**

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNES	S CONDUCT.	BEND
нк079 712	0001	0001	43.0	41.6	19.4	RE 97	N/A	N/A
HK079 712	0001	0002	13.1	38.1	20.5	RE 97	N/A	N/A
HK079 712	0001	0003	43.0	41.6	20.8	RE 97	N/A	N/A
HK079 712	C001	0004	46.7	39.3	20.3	RE 97	N/A	N/A
HK079 712	C001	0005	47.4	43.3	18.0	RE 97	N/A	N/A
HK079 712	C001	0006	47.8	40.0	18.0	RE 97	N/A	N/A
HK079 712	C001	0007	43.0	42.9	18.6	RE 97	N/A	N/A
HK079 712	0001	0008	48.0	41.9	18.3	RE 97	N/A	N/A
HK079 712	C001	0009	46.9	41.3	19.4	RE 97	N/A	N/A
нк079 712	C001	0010	47.9	40.1	19.8	RE 97	N/A	N/A
HK079 712	C001	0011	46.9	38.6	15.9	RE 97	N/A	N/A
IIK079 712	C001	0012	48.1	44.4	19.7	RE 96	N/A	N/A
HK079 712	C001	0013	18.0	42.2	21.7	RE 96	N/A	N/A
HK079 712	C001	0014	47.0	42.1	18.7	RE 96	N/A	N/A
HK079 712	C001	0015	47.5	39.4	17.6	RE 96	N/A	N/A
HK079 712	C001	0016	48.4	40.4	15.1	RE 96	N/A	N/A
HK0/9 712	C001	0017	48.0	41.9	19.5	RE 95	N/A	N/A
HK079 712	0001	0013	48.1	43.1	17.6	RE 95	N/A	N/A

## Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Τí	Pb	Bi	Zr	Ea	Tot	
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15	
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00	
A32603	.68	.32	.24	.05	. 98	.11	.06	.01	.00	.00	.00	.00	.01	
A32602	.69	.32	.23	.05	, 95	.10	.04	.02	.00	.co	.00	.oc	.00	
A32601	.70	.30	.24	.06	.97	.11	.05	.02	.00	.co	.00	.00	.00	

Applicable Requirements:

Plant Serial: 00045426 Kaiser Order Number: 621011

Line Item: 001

Page 1 of 2

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511 .750" X 1.50" X 144.0000" PART NO.

PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Resu
-------------------------------

BL PEC-777693-005

23Jul12

\_\_\_\_\_ Pg 2/2

# KAISER ALUMINUM FABRICATED PRODUCTS



### **CERTIFIED TEST REPORT**

Signed by:

http://Online.KaiserAluminum.com

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048

ASTM-B221-08-STENCILED ASME-SB221 1998 SECT II AMS-QQ-A-200/8 UNS $\sharp$ 96061 (T6511 also conforms to T6-not applicable to other tempers)

#### Miscellaneous Notes

MANUFACTURED IN USA (COMMERCE, CA) MELTED IN USA

#### CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Alex Yeh, Quality & Technology Manager

14 12/07/27

Plant Serial: 00045426 Kaiser Order Number: 621011

Line Item: 001

**Certificate of Mill Test Results** 

BL PEC-777693-009

23Jul12 Pg 1/1

DART AEROSPACE

PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

EXTRUDEX
AL LIMINUM

TEL: (416)745-4444 FAX:(416)745-0925 1-800-668-7210 411 CHRISLEA ROAD, WOODBRIDGE, ONTARIO, CANADA L4L 8N4 http://www.extrudex.com

# MILL TEST REPORT

BILL TO

THYSSENKRUPP MATERIALS, NA

THYSSENKRUPP MATERIALS, NA SO DESCRIPTION 2"x2.5" FB

Cen Code

CUSTOMER PO

CUSTOMER PART NUMBER

0.02

PEC-239512

DIE NUMBER S 23922

PART DESCRIPTION

ALLOY TEMPER 6061 T6511

SALESMAN FORBES DODWELL

DATE OF SHIPMENT

EXTRUDEX ORDER NO.

MANIFEST NO.

146935 - 4

270266

MADE IN CANADA

CERTIFICATION

MILL TEST ASTM B221

## **Mechanical Properties**

<u>Lot</u>

<u>Alloy</u>

Test Date

Ultimate Tensile Yield Strength Strength (KSI)

Percent (KSI) Elongation

7/16/2012

Signed by:

<u>Hardness</u>

Conductivity

A.11

A.11

6061

Jul/13/12

45.2

42.4

13.30

89.3, 89.0, 89.8

## **Chemical Composition**

Cast Number

C7331164 6061 Si

<u>Fe</u> <u>Cu</u> Mg 0.18 0.19 0.01 0.86 0.06

0.00 0.01 0.01

0.00

0.00 0.00 0.00

0.00 0 00.0

0.00 0.00

<u>Co</u>

**Other** 0.00Remainder 0.00

David Natale

Quality Control Manager

DART AEROSPACE

ALUMINUM SHEET 6061 T6 .0810 Nom X 48.0000" X 144.0000" PART NO. PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

## **Certificate of Mill Test Results**

BL PEC-777693-012

23Jul12

Pg 1/2

Signed by:\_\_\_\_\_



AB-Pos.

ord.-Item.

BNr/Los/Telllos

Lot/No./Part

actual

Guss Nr.

cast no.

0.65

0.48

# Abnahmeprüfzeugnis 3.1 (EN 10204) Inspection certificate – mill certificate

Inspection certificate – mill certificate

Zertifiziert nach / certifled to ISO 9001, ISO/TS 16949, EN/AS 9100, ISO 14001, NADCAP

Nr.: 85289222 02/7

Rev. 0

Seite / page: 1 von / of 2 Datum / date: 2012 02 15

Gewicht netto

weight net

0,04

Auftraggeber / customer: ThyssenKrupp Materials NA	Bestell Nr. / order no.: Datum / date:	PEC-236262 2012 01 19
2821 Langstaff Rd CDN-L4K 5C6 CONCORD,ON	Auftragsbest. Nr. / order confirm. no.: Datum / date:	636296 2012 01 20
Warenemptänger / consignee: ThyssenKrupp Materials NA	Lieferschein Nr. / delivery note: Datum / date:	85289222 2012 02 29
2821 Langstaff Rd CDN-L4K 5C6 CONCORD,ON	Akkreditiv Nr. / letter of credit no.:	
Endkunde, Bestell-Nr. / Your cust., ord. no.:		}

Produkt/product	Bedingungen/terms
Form / form: Sheet Werkstoff / material: 6061 Zustand / temper: T6 Dim. / dim: [inch]: 0,080x48,00x144,00 Kundenartikel-Nr / customer article no.:	Techn. Lieferbedingungen / techn. spec.: AMS-QQ-A-250/11, 08.1997 ASTM B 209 - 07 Material meets also the mech. properties of AMS 4027N, 07.2008, but not marked ANSI H35.2-2009 ASME SB 209, 2007 Sondervorschrift / special terms:

02	25872/01/00	01/0047294	4/1	6061	.1	6362	960002	4029	,982 lbs	;	77
Chemische	Zusammensetzu	ing / chemic	al comp	osition	: [%] Ge	wichtsa	nteile / w	eight pr	oportion	(OES)	
Guas Nr. / cast (	no. AMAG designa	tion									
01/0047294/1	6061.1	Si	Fe	Cu	Mn	Mg	Cr	NI	Zn	Ti	

0,11

0,91

0,23

Werkstoff

material

Kollo

packno.

0,18

0,01

Zugversuch	n / Tensile t	est				•	
BNr/Los Lot/No.	Zustand temper	Richtung direction	Rm [ksi]	Rp0.2 [ksl]	A2" [%]		
25872/01	T6	LT	47,0	39,2	16		
25872/01	T6	LT	47,1	39,2	15		
25872/01	T6	LT	47,3	39,3	15		
25872/01	T6	LT	47,0	39,2	16		
25872/01	T6	LT	46,8	39,0	16		
25872/01	T6	LT	46,7	38,9	15	T	
25872/01	T6	LT	46,7	38,9	15		
25872/01	T6	LT	46,8	39,0	16		
25872/01	T6	LT	46,6	38,7	15		

14 12/07/27

Stk.

DC6.

0,06

AMAG rolling GmbH, Postfach 32, A-5282 Ranshofen, Österreich – www.amag.at AMAG rolling GmbH, P.O. Box 32, A-5282 Ranshofen, Austria – www.amag.at

DART AEROSPACE

ALUMINUM SHEET 6061 T6 .0810 Nom X 48.0000" X 144.0000" PART NO.

PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

## **Certificate of Mill Test Results**

BL PEC-777693-012

23Jul12

Signed by: Pg 2/2



Abnahmeprüfzeugnis 3.1 (EN 10204) Inspection certificate – mill certificate

Zent fiziert nach / pertified to ISO 9001, ISO/TS 16949, EN/AS 9100, ISO 14001, NADCAP

Nr.: 85289222 02/7

Rev. 0

Selte / page: 2 von / of 2 Datum / date: 2012 02 15

Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellung entspricht. We hereby certify that the material described above has been tested and complies with the terms of the order contract.

Werkssachverständiger / factory specialist	E-Mail / e-mall
Josef Klampfer	j.klampfer@amag.at

Herstellerland: Österreich / goods origin: The goods are of Austrian origin. Maschinell erstellt - Gültig ohne Unterschrift / Automated - valid without being signed.

AMAG rolling GmbH, Postfach 32, A-5282 Ranshofen, Österreich – www.amaq.at
AMAG rolling GmbH, P.O. Box 32, A-5282 Ranshofen, Austria – www.amaq.at



Tel: 613 632 9577 Fax: 613 632 1053

#### **PURCHASE ORDER**

### Purchase Order ID PO17463

Purchase Order Date 7/17/12 **PO Print Date** 7/17/12

Page Number 1 of 6

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8

CA

**Contact Name** 

Vendor Fax

Vendor Phone

905 669 9444

905 738 9033

Vendor Account Nbr

Buyer Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607 Net 30

Terms Currency

CAD

**FOB** 

Destination-Collect

Ship To:

DART AEROSPACE LTD

1270 ABERDEEN

HAWKESBURY, ON K6A 1K7

CANADA

REVISED

Line N	br Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable Unit		Ship Method	Unit Price	Extended Price
3	M303B1 000X1 000	303 BAR I" X I"	7/25/12 Yes	12.00 f	Yours ppd	\$13.7500	\$165.00
		Special Inst:	MATERIAL: AISI 3 ASTM A582	03 SS BAR AS	PER	, ,	
			NOTE: AISI 304/316	S NOT ACCEP	TABLE		
4	M304B0.500X2.500	304 BAR .500 x 2.5 )	7/25/12 Yes	24.00 f	Yours pnd	\$12.9083	\$309.80
		Special Last:	AISI 304/316 SS BA PLATE AS PER ASTM A2				
			(NOTE: AISI 303	NOT ACCEPTA			
5	M304B0.625X3.000 აჯ <b>0</b>	304 BAR .625 X 3.00	7/25/12 Yes	12.00 f	Yours ppd	\$20.2500	\$243.00

**MATERIAL CERTIFICATION** REO'D LIPON DELIVERY

No substitution or deviation without

consent.

Certificate of Conformity or Material

Change Nbr:

2

Change Date: 7/17/12

Certification required - YES NO



Tel: 613 632 9577 Fax: 613 632 1053

#### **PURCHASE ORDER**

### Purchase Order ID PO17463

Purchase Order Date 7/17/12 PO Print Date 7/17/12

Page Number 2 of 6

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8

CA

**Contact Name** Vendor Phone

905 669 9444

Vendor Fax

905 738 9033

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

**Terms** Currency Net 30 CAD

**FOB** 

Destination-Collect

Special Inst:

AISI 304/316 SS BAR OR AISI 304/316 SS

**PLATE** 

AS PER ASTM A276 OR ASTM A240

(NOTE: AISI 303 NOT ACCEPTABLE)

M304S11GA

020

304/316 0.125 Sheet

7/23/12 Yes

\$9.0193

\$2,525.40

1

Special Inst:

MATERIAL: AISI 304/316 SS SHEET

ANNEALED 2B FINISH

AS MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316)

OR ASTM A240 OR ASME SA240

M6061T6B0.500X01.250

6061-T6 Bar .500 x 1.25

7/23/12

Yes

\$1.5750

\$37.80

010

Special Inst:

MATERIAL: 6061-

T6/T651/T6510/T6511/T62 ALUMINUM

BAR

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8

OR AMS 4117/4128/4115/4116

OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR

AMS 4160 OR ASTM B211 OR

ASTM B221

M6061T6B0.500X06.000

6061-T6 Bar .500 x 6.00

7/23/12

Cuspips

\$7,1667

\$172.00

004

No substitution or deviation without

consent.

Certificate of Conformity or Material Certification required (XES

Change Nbr:

1

Change Date: 7/17/12

per tradition epitalists



Tel: 613 632 9577 Fax: 613 632 1053

#### PURCHASE ORDER

#### Purchase Order ID PO17463

Purchase Order Date 7/17/12 PO Print Date 7/17/12

Page Number 3 of 6

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8

CA

**Contact Name** 

Vendor Phone

905 669 9444

905 738 9033 Vendor Fax

Vendor Account Nbr

Chantal Lavoie Buyer

Requisition Nbr

10127-2607 Tax Resale Nbr Net 30 Terms

CAD Currency

**FOB** 

Destination-Collect

Special Inst: MATERIAL: 6061-

T6/T651/T6510/T6511/T62 ALUMINUM

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8

OR AMS 4117/4128/4115/4116

OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR

AMS 4160 OR ASTM B211 OR

ASTM B221

M6061T6B0.750X01.500

6061-T6 Bar .750 X 1.50

7/23/12

Yours ppd \$2.6667 \$64.00

کون

Special Inst:

MATERIAL: 6061-

Yes

T6/T651/T6510/T6511/T62 ALUMINUM

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8

OR AMS 4117/4128/4115/4116

OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR

AMS 4160 OR ASTM B211 OR

ASTM B221

M6061T6B1.000X04.000 10

6061-T6 Bar 1.00 x 4.00

7/23/12

24.00 Yours ppd

\$9.4167

\$226.00

004

Special Inst:

MATERIAL: 6061-

Yes

T6/T651/T6510/T6511/T62 ALUMINUM

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8

OR AMS 4117/4128/4115/4116

OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR

AMS 4160 OR ASTM B211 OR

ASTM B221

M6061T6B1.250X01.250

6061-T6 Bar 1.25 x 1.25

7/23/12

12.00 Yours ppd \$3.6667

\$44.00

Yes

No substitution or deviation without

consent.

Certificate of Conformity or Material Certification required - YES NO

Change Nbr:

\$2. 14.

11

2

**Change Date:** 7/17/12

- 神學所見



Tel: 613 632 9577 Fax: 613 632 1053

### **PURCHASE ORDER**

### Purchase Order ID PO17463

Purchase Order Date 7/17/12 PO Print Date 7/17/12

Page Number 4 of 6

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8

CA

**Contact Name** 

**Vendor Phone** 

905 669 9444

Vendor Fax

905 738 9033

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607 Net 30

Terms Currency

CAD

FOB

Destination-Collect

**Special Inst:** 

MATERIAL: 6061-

T6/T651/T6510/T6511/T62 ALUMINUM

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8

OR AMS 4117/4128/4115/4116

OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR

AMS 4160 OR ASTM B211 OR

ASTM B221

M6061T6B1.500X02.000 12

6061-T6 Bar 1.50 x ?.00

7/23/12

Yours ppd

\$84.00

010

Special Inst:

MATERIAL: 6061-

Yes

T6/T651/T6510/T6511/T62 ALUMINUM

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8

OR AMS 4117/4128/4115/4116

OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR

AMS 4160 OR ASTM B211 QR

ASTM B221

M6061T6B2.000X02.250 13

6061-T6 Bar 2.00 x 2.25

7/23/12 Yes

\$142.00

ശീ

Special Inst:

MATERIAL. 6061-

T6/T651/T6510/T6511/T62 ALUMINUM

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8

OR AMS 4117/4128/4115/4116

OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR

AMS 4160 OR ASTM B211 OR

ASTM B221

M6061T6R1.000

ROUND BAR 1.00"

7/23/12

Yours ppd

\$1.8333

\$44.00

Yes

No substitution or deviation without

consent.

Certificate of Conformity or Material Certification required YES NO

Change Nbr:

Change Date: 7/17/12

. . . . .



Tel: 613 632 9577 Fax: 613 632 1053

#### **PURCHASE ORDER**

#### Purchase Order ID PO17463

Purchase Order Date 7/17/12 PO Print Date 7/17/12

Page Number 5 of 6

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8

CA

**Contact Name** 

**Vendor Phone** 

905 669 9444

Vendor Fax

905 738 9033

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

**FOB** 

Destination-Collect

Special Inst:

MATERIAL: 6061-

T6/T651/T6510/T6511/T62 ALUMINUM

ROUND BAR

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8

OR AMS 4117/4128/

4115/4116 OR QQ-A-200/8 OR AMS-QQ-

A-200/8 OR AMS 4160

OR ASTM B211 OR ASTM B221

15 M6061T6R3.500

000

6061 RD bar 3.50

7/23/12

\$23.5000

\$282.00

Special Inst:

MATERIAL: 6061-

Yes

T6/T651/T6510/T6511/T62 ALUMINUM

ROUND BAR

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8

OR AMS 4117/4128/

4115/4116 OR QQ-A-200/8 OR AMS-QQ-

A-200/8 OR AMS 4160

OR ASTM B211 OR ASTM B221

M6061T6S.032 16

الحن

6061-T6 Sheet 0.032"

7/23/12

Yes

96.00 Yours ppd

sf

\$1.9792

\$190.00

Special Inst:

MATERIAL: 6061-T6/T62 ALUMINUM

SHEET

AS PER QQ-A-250/11 OR AMS-QQ-A-

250/11 OR

AMS 4025 OR AMS 4027 OR ASTM B209

17 M6061T6S.080 6061-T6 .080 Sheet

7/23/12

96.00 Yours ppd

\$3.1042

\$298.00

621

Yes

1/11/1/26

consent.

No substitution or deviation without

Certificate of Conformity of Material Certification required (- YES) NO

Change Nbr:

**Change Date:** 7/17/12



Tel: 613 632 9577 Fax: 613 632 1053

### **PURCHASE ORDER**

### Purchase Order ID PO17463

Purchase Order Date 7/17/12 PO Print Date 7/17/12

Page Number 6 of 6

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8

CA

**Contact Name** 

**Vendor Phone** 

905 669 9444

Vendor Fax

905 738 9033

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms Currency Net 30 CAD

**FOB** 

Destination-Collect

Special Inst:

MATERIAL: 6061-T6/T62 ALUMINUM

SHEET

AS PER QQ-A-250/11 OR AMS-QQ-A-

250/11 OR

AMS 4025 OR AMS 4027 OR ASTM B209

M6061T6S.125 18

6061-T6 .125 Sheet

7/23/12

Yes

64.00 Yours ppd

\$4.8438

\$310.00

Special Inst:

MATERIAL: 6061-T6/T62 ALUMINUM

SHEET

AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR

AMS 4025 OR AMS 4027 OR ASTM B209

19 M7075T73B2.500X03.25 7075-T73 Bar 2.50 x 3.25

7/23/12

6.00 Yours ppd

f

\$49.6667

\$298.00

008

Special Inst:

7075-T73 (OR 7075-

Yes

T7351/T73510/T73511) BAR PER ASM-QQ-A-200/I1 OR AMS-QQ-A-225/9 (AMS 4124) OR AMS-QQ-A-250/12 (AMS 4078)

PO Total:

\$5,435.00

No substitution or deviation without consent.

Certificate of Conformity or Material Certification required A NO

Change Nbr:

Change Date: 7/17/12

07/17/12 02:23 PM EDT

STELfax

From: THYSSENKRUPP MATERIALS NA

STAN IVERS Tel: 905 669 9444 Fax: 9057389033

To:

DART AEROSPACE Attn: 96294 Tel: 613-632-9577 Fax: 613-632-1053 Number of Pages: 4

Subject: Sales Acknowledgement

. 17Jul12 14:22 SALES ACKNOWLEDGMENT No: PEC ST-472083

Sold By: THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD

CONCORD, ONTARIO L4K 5C6

Tel: 905 669 9444 Fax: 9057389033

Sold To: (20115)
DART AEROSPACE
1270 ABERDEEN ST
HAWKESBURY, ON K6A 1K7

Ship To: ( 1)
DART AEROSPACE
1270 ABERDEEN ST
HAWKESBURY, ON K6A 1K7

	ia V D∕Re el 6	IM T 1 17 13-6	RANS 463 32-9		613	-632-	-1053	
S A L E S A C K I Test Certs: Chem Y Phys Y 1 Orio	N O gina	W L l co	E D pies	G M E N s with S	l T Shipm	SO ent,	No PEC 1 with	ST-472083 Invoice
1 STAINLESS STEEL SQ BAR 303 STAIN 1.00" X 151.0000" MATERIAL ENERGY & CAP SURCHG	LESS		6	165. 0 25. 0	1000	PCS EA LOT		43 LBS 165.00 25.00
2 STAINLESS STEEL SHEET 304-2B .1200 Nom X 48.0000" X 120.0000" MATERIAL		PCS		360.7	7	PCS		1,403 LBS 2,525.40
3 ALUMINUM FLAT BAR 6061-T6511 .50" x 1.250" X 144.0000" MATERIAL		FT	 @	1. 5		PCS FT		18 LBS 24 FT 37.80
4 ALUMINUM FLAT BAR 6061-T6511 .50" X 6.00" X 144.0000"		 FT	· @	7. 1		PCS FT		86 LBS 24 FT 172.00
5 ALUMINUM FLAT BAR 6061-T6511 .750" X 1.50" X 144.0000" MATERIAL	24	 FT	· @	2. 6		PCS FT		32 LBS 24 FT 64.00
6 ALUMINUM FLAT BAR 6061-T6511 1.00" x 4.00" X 144.0000" MATERIAL	24	 FT	 @	9. 4		PCS FT		113 LBS 24 FT 226.00
7 ALUMINUM SQUARE BAR 6061-T6511 1.250" X 144.0000" MATERIAL		 FT	· @	3. 6		PCS FT		22 LBS 12 FT
8 ALUMINUM FLAT BAR 6061-T6511 1.50" x 2.00" X 144.0000"		 FT	e	7. 0		PCS FT		42 LBS 12 FT 84.00
9 ALUMINUM FLAT BAR 6061-76511 2.00" x 2.50" X 144.0000" Part No OFFERING************************************	12	FT	e	11. 8		PCS FT		71 LBS 12 FT 142.00

Page: 1 .... Continued

. 17Jull2 14:22 SALES ACKNÖWLEDGMENT No: PEC ST-472083 Sold By:

THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD

CONCORD, ONTARIO L4K 5C6

Tel: 905 669 9444 Fax: 9057389033

***	Sold To: ( 20115) DART AEROSPACE	2 C 2 :		DAF	p To:	SPAC	Ε	o	
	SALES ACKN Test Certs: Chem Y Phys Y 1 Orig	ina.	l co	pies	with	Ship	ment,	1 with	Invoice
	ALUMINUM ROUND BAR 6061-T6511 1.00" DIA X 144.0000" MATERIAL					2	PCS		22 LBS 24 FT
11	ALUMINUM ROUND BAR 6061-T6511 3.50" DIA X 144.0000"	12	FT	0	23.	1 5000	PCS FT		141 LBS 12 FT 282.00
12	ALUMINUM SHEET 6061 T6 .0810 Nom X 48.0000" X 144.0000" MATERIAL					5	PCS		
	ALUMINUM SHEET 6061 T6 .1250 Nom X 48.0000" X 96.0000" MATERIAL	5	PCS	0	155.	5	PCS		112 LBS 310.00
14	ALUMINUM PLATE 7075T7351 2.50" THICK X 3.2500" X 72.0000"  Part No PLATE ASTM B 209 QQ-A-250  <<< SP  Ga Tol + 0.0000 - 0.0000 Pc/Tag  WthTol + 0.0630 - 0.0000 Ty  MATERIAL	/12 ECI: Pk 1	FICA 1	TION @	S 298.	0000	 EA		298. 00
	MILL TEST REPORTS, PACKING SLIPS WITH MATERIAL AND FAXED TO THE CU TO SHIPPING. ATTN: CHANTAL/LINDA ** ALL PACKING SLIPS MUST HAVE TH ** REFERENCED ON IT **  ** CUSTOMER PICK-UP HRS / 9:00 AM *** TEL. 800-926-2600 ***  *******************************	ARE STOIL  E HI  TO  ***  REI  ***  RCH  ***	MER  4:0  *** QUIR  *** ARGE  *** SS. C	SENT PRIC NUME O PN **** WIL ****, PL	ER **  *****  IT *  ******  L BE  *****	: : :			

Page: 2 .... Continued

. 17Jul12 14:22 SALES ACKNOWLEDGMENT No: PEC ST-472083

Sold By:

THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD

CONCORD, ONTARIO L4K 5C6 Tel: 905 669 9444 Fax: 9057389033

Sold To: ( 20115)

Ship To: (1)

DART AEROSPACE

DART AEROSPACE

S A L E S A C K N O W L E D G M E N T SO No PEC ST-472083

Test Certs: Chem Y Phys Y 1 Original copies with Shipment, 1 with Invoice
4,692.20 25.00 613.23 5,330.43 

Taxes: ONHSTS 613.23

Page: 3 .... Last



Tel: 613 632 9577 Fax: 613 632 1053

#### **PURCHASE ORDER**

#### Purchase Order ID PO17463

Purchase Order Date 7/17/12 PO Print Date 7/17/12

Page Number 1 of 7

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8

CA

**Contact Name** 

Vendor Phone

905 669 9444

Vendor Fax

905 738 9033

Vendor Account Nbr

Buyer

Requisition Nbr

Tax Resale Nbr

Currency

**FOB** 

Terms

CAD

Net 30

10127-2607

Chantal Lavoie

Destination-Collect

Ship To:

DART AEROSPACE LTD

1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CANADA



Line Nt	or Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable Uni	Req Qty/ it of Measure	Ship Method	Unit Price	Extended Price
i l	M174B1.500X02.250	17-4 SS Bar 1.50 X2.250	7/30/12 Yes	12.00 f	Yours ppd	\$53.5933	\$643.12
		Special In	MATERIAL: 17-4 F 5604/5643 GRAIN MUST BE BAR MINIMUM YIELD = 100 KSI MINIMUM ULTIM STRENGTH = 150	ALONG LENGT TENSILE STRE ATE TENSILE	ГН ОҒ		
2	M2024T3S.063	2024-T3 .063 sheet	7/23/12 Yes	96.00 sf	Yours ppd	\$5.9375	\$570.00
	Carrold	Special Inst:	MATERIAL: 2024-	T3 ALUMINUM	1 SHEET		

AMS 4037 OR ASTM B209

7/25/12

Yes

QQ-A-250/4 OR AMS-QQ-A-250/4 OR

12.00 Yours ppd

f

No substitution or deviation without consent.

\$13.7500

\$165.00

Certificate of Conformity Material Certification required YES NO

Change Nbr:

M303B1.000X1.000

Change Date: 7/17/12

303 BAR 1" X 1"



Tel: 613 632 9577 Fax: 613 632 1053

#### **PURCHASE ORDER**

#### Purchase Order ID PO17463

Purchase Order Date 7/17/12 PO Print Date 7/17/12

Page Number 2 of 7

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8

CA

**Contact Name** 

Vendor Phone

905 669 9444

Vendor Fax

905 738 9033

Vendor Account Nbr

Chantal Lavoie Buyer

Requisition Nbr

Tax Resale Nbr

Net 30

Terms Currency

CAD

**FOB** 

Destination-Collect

10127-2607

Special Inst:

MATERIAL: AISI 303 SS BAR AS PER

ASTM A582

NOTE: AISI 304/316 NOT ACCEPTABLE

M304B0.500X2.500

304 BAR .500 x 2.50

7/25/12

Yes

24.00 Yours ppd

f

\$12.9083

\$309.80

Special Inst:

AISI 304/316 SS BAR OR AISI 304/316 SS

PLATE

AS PER ASTM A276 OR ASTM A240

(NOTE: AISI 303 NOT ACCEPTABLE)

M304B0.625X3.000

304 BAR .625 X 3.00

7/25/12 Yes 12.00 Yours ppd

f

\$20.2500

\$243.00

Special Inst:

AISI 304/316 SS BAR OR AISI 304/316 SS

AS PER ASTM A276 OR ASTM A240

(NOTE: AISI 303 NOT ACCEPTABLE)

M304S11GA

304/316 0.125 Sheet

7/23/12

Yes

280.00 Yours ppd

sf

\$9.0193

\$2,525.40

Special Inst:

MATERIAL: AISI 304/316 SS SHEET

ANNEALED 2B FINISH

AS MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316)

OR ASTM A240 OR ASME SA240

No substitution or deviation without

consent.

Certificate of Conformity of Material Certification required (YES)

Change Nbr:

Change Date: 7/17/12

NO



Tel: 613 632 9577 Fax: 613 632 1053

#### **PURCHASE ORDER**

#### Purchase Order ID PO17463

Purchase Order Date 7/17/12 PO Print Date 7/17/12

Page Number 3 of 7

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8

CA

Contact Name

Vendor Phone

905 669 9444

Vendor Fax

Vendor Account Nbr

905 738 9033

6061-T6 Bar .500 x 1.25

7/23/12

24.00

\$1.5750

\$37.80

M6061T6B0.500X01.250

Yes

Yours ppd

Yours ppd

Destination-Collect

Chantal Lavoie

10127-2607

Net 30

CAD

Special Inst:

MATERIAL: 6061-

T6/T651/T6510/T6511/T62 ALUMINUM

BAR

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8

OR AMS 4117/4128/4115/4116

Buyer

Currency **FOB** 

Requisition Nbr

Tax Resale Nbr Terms

OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR

AMS 4160 OR ASTM B211 OR

ASTM B221

M6061T6B0.500X06.000

6061-T6 Bar .500 x 6.00

7/23/12

24.00

\$7.1667

\$172.00

Yes

Special Inst: MATERIAL: 6061-

T6/T651/T6510/T6511/T62 ALUMINUM

**BAR** 

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8

OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR

AMS 4160 OR ASTM B211 OR

ASTM B221

M6061T6B0.750X01.500

6061-T6 Bar .750 X 1.50

7/23/12

Yes

24.00 Yours ppd

f

\$2.6667

\$64.00

Special Inst:

MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM

BAR

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8

OR AMS 4117/4128/4115/4116

OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR

AMS 4160 OR ASTM B211 OR

ASTM B221

No substitution or deviation without consent.

Certificate of Conformity or Material NO Certification required - YES

Change Nbr:

**Change Date:** 7/17/12



Tel: 613 632 9577 Fax: 613 632 1053

#### **PURCHASE ORDER**

#### Purchase Order ID PO17463

Purchase Order Date 7/17/12 PO Print Date 7/17/12

Page Number 4 of 7

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8

CA

10

11

12

**Contact Name Vendor Phone** 

905 669 9444

Vendor Fax

905 738 9033

Vendor Account Nbr

Buyer Requisition Nbr Chantal Lavoie

Tax Resale Nbr

10127-2607

Terms Currency Net 30 CAD

**FOB** 

Destination-Collect

M6061T6B1.000X04.000

6061-T6 Bar 1.00 x 4.00

7/23/12

Yes

24.00

Yours ppd

Yours ppd

\$9.4167

\$226.00

Special Inst:

MATERIAL: 6061-

T6/T651/T6510/T6511/T62 ALUMINUM

BAR

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8

OR AMS 4117/4128/4115/4116

OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR

AMS 4160 OR ASTM B211 OR

ASTM B221

M6061T6B1.250X01.250

6061-T6 Bar 1.25 x 1.25

7/23/12

12.00

\$3.6667

\$44.00

Yes

Special Inst:

MATERIAL: 6061-

T6/T651/T6510/T6511/T62 ALUMINUM

BAR

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8

OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR

AMS 4160 OR ASTM B211 OR

ASTM B221

M6061T6B1.500X02.000

6061-T6 Bar 1.50 x 2.60

7/23/12

12.00 Yours ppd

f

\$7.0000

\$84.00

Special Inst:

MATERIAL: 6061-

Yes

T6/T651/T6510/T6511/T62 ALUMINUM

BAR

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8

OR AMS 4117/4128/4115/4116

OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR

AMS 4160 OR ASTM B211 OR

ASTM B221

No substitution or deviation without

consent.

Certificate of Conformity or Material Certification required YES NO

Change Nbr:

Change Date: 7/17/12



Tel: 613 632 9577 Fax: 613 632 1053

#### **PURCHASE ORDER**

#### Purchase Order ID PO17463

Purchase Order Date 7/17/12 PO Print Date 7/17/12

Page Number 5 of 7

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8

CA

**Contact Name** Vendor Phone

905 669 9444

Vendor Fax

905 738 9033

Vendor Account Nbr

Buyer Requisition Nbr

Tax Resale Nbr

Terms Currency Net 30 CAD

**FOB** 

Destination-Collect

Chantal Lavoie

10127-2607

13 M6061T6B2.000X02.250 6061-T6 Bar 2.00 x 2.25

7/23/12

Yes

12.00

Yours ppd

\$11.8333

\$142.00

Special Inst:

MATERIAL: 6061-

T6/T651/T6510/T6511/T62 ALUMINUM

BAR

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8

OR AMS 4117/4128/4115/4116

OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR

AMS 4160 OR ASTM B211 OR

ASTM B221

M6061T6R1.000

14

ROUND BAR 1.00"

7/23/12

Yes

24.00 Yours ppd \$1.8333

\$44.00

Special Inst:

MATERIAL: 6061-

T6/T651/T6510/T6511/T62 ALUMINUM

ROUND BAR

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/

4115/4116 OR OQ-A-200/8 OR AMS-QQ-

A-200/8 OR AMS 4160

OR ASTM B211 OR ASTM B221

M6061T6R3.500 15

6061 RD bar 3.50

7/23/12

Yes

12.00 Yours ppd

f

\$23.5000

\$282.00

Special Inst:

MATERIAL: 6061-

T6/T651/T6510/T6511/T62 ALUMINUM

**ROUND BAR** 

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8

OR AMS 4117/4128/

4115/4116 OR QQ-A-200/8 OR AMS-QQ-

A-200/8 OR AMS 4160

OR ASTM B211 OR ASTM B221

No substitution or deviation without

consent.

Certificate of Conformity or Material NO Certification required YES

Change Nbr:

Change Date: 7/17/12



Tel: 613 632 9577 Fax: 613 632 1053

#### **PURCHASE ORDER**

#### Purchase Order ID PO17463

Purchase Order Date 7/17/12 PO Print Date 7/17/12

Page Number 6 of 7

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8

CA

_	A			<del> </del>		·····		
Contact Name Vendor Phone Vendor Fax Vendor Account Nbr		905 669 9444 905 738 9033		Buyer Requisit Tax Res: Terms Currenc FOB	ale Nbr	Chantal Lavoie  10127-2607  Net 30  CAD  Destination-Collect		
16	M6061T6S.032	6061-	Γ6 Sheet 0.032"	7/23/12 Yes	96.00 sf	Yours ppd	\$1.9792	\$190.00
			Special Inst:	MATERIAL: 6061-T SHEET AS PER QQ-A-250/I 250/11 OR AMS 4025 OR AMS	1 OR AMS-Q	Q-A-		
17	M6061T6S.080	6061-7	Γ6 .080 Sheet	7/23/12 Yes	96.00 sf	Yours ppd	\$3.1042	\$298.00
			Special Inst:	MATERIAL: 6061-T SHEET AS PER QQ-A-250/I 250/11 OR AMS 4025 OR AMS	1 OR AMS-Q	Q-A-		
18	M6061T6S.125	6061-1	Γ6 .125 Sheet	7/23/12 Yes	64.00 sf	Yours ppd	\$4.8438	\$310.00
			Special Inst:	MATERIAL: 6061-T SHEET AS PER QQ-A-250/I 250/I1 OR AMS 4025 OR AMS	1 OR AMS-Q	Q-A-		
19	M7075T73B2.500X	03.25 7075-1	Γ73 Bar 2.50 x 3.25	7/23/12	6.00	Yours ppd	\$49.6667	\$298.00

No substitution or deviation without consent.

Certificate of Conformity or Material Certification required YES ) NO

Change Nbr:

**Change Date:** 7/17/12

Yes



Tel: 613 632 9577 Fax: 613 632 1053

#### **PURCHASE ORDER**

#### Purchase Order ID PO17463

Purchase Order Date 7/17/12 PO Print Date 7/17/12

Page Number 7 of 7

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8

CA

**Contact Name** 

**Vendor Phone** 

905 669 9444

Vendor Fax

905 738 9033

Vendor Account Nbr

Buyer Requisition Nbr

Chantal Lavoie

Tax Resale Nbr

10127-2607

Terms

Net 30 CAD

Currency FOB

Destination-Collect

Special Inst:

7075-T73 (OR 7075-

T7351/T73510/T73511) BAR PER ASM-QQ-A-200/11 OR AMS-QQ-A-225/9 (AMS 4124) OR AMS-QQ-A-250/12 (AMS 4078)

PO Total:

\$6,648.12

MATERIAL CERTIFICATION REQ'D UPON DELIVERY

No substitution or deviation without consent.

Certificate of Conformity of Material NO

Change Nbr:

Change Date: 7/17/12

Certification required - YES

No: PEC ST-471216

· Quoted By:

THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD

CONCORD, ONTARIO L4K 5C6

Tel: 905 669 9444 Fax: 9057389033

Quoted To: ( 20115) DART AEROSPACE 1270 ABERDEEN ST HAWKESBURY, ON K6A 1K7 Quoted Ship To: (1) DART AEROSPACE 1270 ABERDEEN ST

HAWKESBURY, ON K6A 1K7

Trm NET 30 DAYS/NET 30 JOURS Frt PREPAID Tel 613-632-9577 Fax 613-632-1053 Slp STAN IVERS (905-532-1350)	Ctc CHANTAL
Q U Test Certs: Chem-Y Phys-Y 1 O	O T A T I O N QT No: PEC ST-471216 original copies with Shipment, 1 with Invoice
1 STAINLESS STEEL PLATE 17-4 1.50 X 2.2500" X 144.0000" Part No 7-10 DAYS PLATE ASTM A	1 PCS 137 LBS
MATERIAL ENERGY & CAP SURCHG	1 PCS @ 643.1200 EA 643.12 25.0000 LOT 25.00
2 ALUMINUM SHEET 2024 -T3 .0640 Nom X 48.0000" X 144.00 Part No MATERIAL DUE SEPT 15	2 PCS 86 LBS
MATERIAL SKID	2 PCS @ 285.0000 EA 570.00 25.0000 LOT 25.00
3 STAINLESS STEEL SQ BAR 303 STA 1.00" X 144.0000" Part No 4-6 DAYS A.R.O	
MATERIAL	1 PCS @ 165.0000 EA 165.00
4 STAINLESS STEEL PLATE 304L .50" THICK X 2.5000" X 144.000 Part No CUT PLATE 5-7DAYS ASTM	2 PCS 105 LBS 0" 1 A 240
Ga Tol + 0.0000 - 0.0000 Pc/' WthTol + 0.0630 - 0.0000 Wt/' LthTol + 0.0000 - 0.000' Ty	Skd
MATERIAL	2 PCS @ 154.9000 EA 309.80
5 STAINLESS STEEL PLATE 304L .625" THICK X 3.0000" X 144.00 Part No CUT PLATE 5-7DAYS ASTM	1 PCS 77 LBS
Ga Tol + 0.0000 - 0.0000 Pc/' WthTol + 0.0630 - 0.0000 Wt/' LthTol + 0.0000 - 0.0000 Ty	Tag 1 Skd

Page: 1 ....Continued

No: PEC ST-471216

· · Quoted By:

THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD

CONCORD, ONTARIO L4K 5C6 Tel: 905 669 9444 Fax: 9057389033

Quoted To: ( 20115) Quoted Ship To: ( 1) DART AEROSPACE DART AEROSPACE

===:					===		=======================================
	Q MATERIAL	U O T	A :	r I ( PCS	И С @ 	QT No: 243.0000 EA	PEC ST-471216 243.00
6	STAINLESS STEEL SHEET 304-2B .1200 Nom X 48.0000" X 120. MATERIAL		7	PCS	 	7 PCS 360.7714 EA	1403 LBS 2,525.40
7	ALUMINUM FLAT BAR 6061-T6511 .50" x 1.250" X 144.0000" MATERIAL		<b>-</b> -	 FT	<del>-</del>	2 PCS 1.5750 FT	18 LBS 24 FT 37.80
8	ALUMINUM FLAT BAR 6061-T6531 .50" X 6.00" X 144.0000" MATERIAL		24	FT	@	2 PCS 7.1667 FT	86 LBS 24 FT 172.00
9	ALUMINUM FLAT BAR 6061-T6511 .750" X 1.50" X 144.0000" MATERIAL		24	FT	@	2 PCS 2.6667 FT	32 LBS 24 FT 64.00
10	ALUMINUM FLAT BAR 6061-T6511 1.00" x 4.00" X 144.0000" MATERIAL		24	FT	@	2 PCS 9.4167 FT	113 LBS 24 FT 226.00
11	ALUMINUM SQUARE BAR 6061-T65 1.250" X 144.0000" MATERIAL	11	12	FT	@	1 PCS 3.6667 FT	22 LBS 12 FT 44.00
12	ALUMINUM FLAT BAR 6061-T6511 1.50" x 2.00" X 144.0000" MATERIAL		12	FT	@	1 PCS 7.0000 FT	42 LBS 12 FT 84.00
13	ALUMINUM FLAT BAR 6061-T6511 2.00" x 2.50" X 144.0000" Part No OFFERING************************************		12	FT	. <b></b> @	1 PCS	71 LBS 12 FT 142.00
14	ALUMINUM ROUND BAR 6061-T651 1.00" DIA X 144.0000" MATERIAL					2 PCS 1.8333 FT	22 LBS 24 FT 44.00
15	ALUMINUM ROUND BAR 6061-Te51 3.50" DIA X 144.0000" MATERIAL		12	FT	@	1 PCS 23.5000 FT	141 LBS 12 FT 282.00
16	ALUMINUM SHEET 6061 T6 .0320 Nom X 48.0000" X 144 Part No 4-6 DAYS A.R.O	0000"				2 PCS	43 LBS

Page: 2 ....Continued

QUOTATION No: PEC ST-471216
Quoted By:

THYSSENKRUPP MATERIALS NA

2821 LANGSTAFF ROAD

CONCORD, ONTARIO L4K 5C6 Tel: 905 669 9444 Fax: 9057389033

	Quoted To: ( 20115 DART AEROSPACE	ŧ		Quoted Ship	PACE		
	MATERIAL SKID	QUOT	ATIO 2 PCS	0 N @ 95.00 25.00	QT No: 000 EA 000 LOT /		
	ALUMINUM SHEET 6061 .0810 Nom X 48.000 MATERIAL	L T6 )0" X 144.0000"	2 PCS	@ 149.00	2 PCS		
18	ALUMINUM SHEET 6061 .1250 Nom X 48.000 MATERIAL	L T6 )0" X 96.9000"	2 PCS	<pre>@ 155.00</pre>		112 310	
	ALUMINUM PLATE 7075 2.50" THICK X 3.250 Part No PLATE ASTM	00" X 72.0000" B 209 QQ-A-250/	12		1 PCS	58	LBS
	Ga Tol + 0.0000 - WthTol + 0.0630 - LthTol + 0.0630 - MATERIAL	0.0000 Pc/Tag 0.0000 Wt/Skd 0.0000 Ty	Pk 1 PCS		000 EA	298	.00
	* PLEASE LET US ( ****************  ***PLEASE NOTE A \$2 ADDED TO EVERY ORDE ************ *FOR OUR FULL SALES *VISIT OUR WEBSITE: ************************************	FAXED TO THE CUSA  PS MUST HAVE THE  T **  time of shipment eipt of total or ecretical. ject to credit a 2600 ***  JP HOURS ***  JP HOURS ***  STAINLESS STEEL QUOTE YOUR NEXT  ****************  ER.**  STERMS AND COND WWW.copperandb	E HEAT Int.  Int.	PRIOR  NUMBER **  L.  *******  EMENT *  ********  WILL BE  ********  PLEASE  om  ********  Totals:	19 Items	2718 LB	
	**************************************	sing Freight	:	Other 75.00	Taxes 874.00	ORDER AMT 7,597.12	
***	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						

Page: 3 ....Continued

QUOTATION No: PEC ST-471216

• Quoted By:

THYSSENKRUPP MATERIALS NA

2821 LANGSTAFF ROAD

CONCORD, ONTARIO L4K 5C6 Tel: 905 669 9444 Fax: 9057389033

Quoted To: ( 20115) DART AEROSPACE

Quoted Ship To: ( 1) DART AEROSPACE

\_\_\_\_\_\_\_

Q U O T A T I O N QT No: PEC ST-471216
Taxes: ONHSTS 874.00 0.00 0.00

Page: 4 ....Last

No: PEC 777693 BILL OF LADING Ship Date 23Jul12 at 10:57 From PFW Ship From: THYSSENKRUPP MATERIALS NA Probill 2821 LANGSTAFF ROAD VIM TRANSFER CONCORD, ONTARIO L4K 5C6 FOB CONCORD Tel: 905 669 9444 Fax: 9057389033 Frt PREPAID Route 0- 0 Manifest Vhcle Trailer Slp STAN IVERS (905-532-1350) Sold To: (20115) DART AEROSPACE Ship To: ( 1) DART AEROSPACE 1270 ABERDEEN ST 1270 ABERDEEN ST HAWKESBURY, ON K6A 1K7 Tel: 613-632-9577 Fax: 613-632-1053 HAWKESBURY, ON K6A 1K7 \_\_\_\_\_\_\_\_\_ BILL OF LADING 1) Our Order PEC-472083- 1 Your PO #/17463 STAINLESS STEEL SQ BAR 303 STAINLESS 1.00" X 151.0000" mber Tag No Quantity PCS ' 88401 12 ' 7.0000 " 1 Heat Number 245298 \_\_\_\_\_ 2) Our Order PEC-472083- 2 Your PO # 17463 STAINLESS STEEL SHEET 304-2B .1200 Nom X 48.0000 X 120.0000" Heat Number Tag No Quantity PCS | SF29688 88728 280.00 SFT 7 Wt LBS 1347 SF29688 3) Our Order PEC-472083- 3 Your PO # 17463 ALUMINUM FLAT BAR 6061-T6511 .50" x 1.250" X 144.0000" Quantity PCS 24 FT 2 Heat Number Taq No Z00248009 88402 \_\_\_\_\_\_ 4) Our Order PEC-472083- 4 Your PO # 17463 ALUMINUM FLAT BAR 6061-T6511 .50" X 6.00" X 144.0000" Quantity PCS 24 FT 2 Wt LBS 201210006 88403 84 24 FT 5) Our Order PEC-472 \$\dagger\*83- 5 Your PO # 17463 ALUMINUM FLAT BAR 6061-T651.1 .750" X 1.50" X 144.0000" PCS | Wt LBS Quantity 24 FT Heat Number Taq No HK079 712 88404 2 Page: 1 ....Continued

TOUTES ERREURS ET/OU MARCHANDISES MAN. ANTES DOIVENT ÊTRE
RAPPORTÉES IMMÉDIATEMENT.
ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT. MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER

THYSSENKRUPP MATERIA 2821 LANGSTAFF ROAD CONCORD, ONTARIO L4 Tel: 905 669 9444 Fa Ship To: (1) DART AEROSPACE	Sold DART	VIM TRANSFER CONCORD PREPAID  0 - 0 Manifest  Trai STAN IVERS (905-5 To: (20115) AEROSPACE	ler 32-1350)
	ILL OF LADIN	G	1
ALUMINUM FLAT BAR 606	000"  mber Tag No  3 88405		i 
7) Our Order PEC-4720 ALUMINUM SQUARE BAR 6	83- 7 Your PO # 17463		   
8) Our Order PEC-4720 ALUMINUM FLAT BAR 606	83- 8 Your PO # 17463 1-T6511		
9) Our Order PEC-4720 Part # OFFERING***** ALUMINUM FLAT BAR 606	83- 9 Your PO # 17463 ********** Rel # 1-T6511		
	83- 10 Your PO # 17463 61-T6511 	Quantity PCS 24 FT 2	Wt LBS 23
11) Our Order PEC-4720 ALUMINUM ROUND BAR 60 3.50" DIA X 144.0000"			
Page: 2Conti	nued		
TOUTES ERREURS ET/OU MARCHANDISE RAPPORTÉES IMMÉI ERRORS OR SHORTAGE MUST BE RETOUR DE MARCHANDISES AVEC NOTRE NL MERCHANDISE MAY NOT BE RETURNED W	DIATEMENT. REPORTED IMMEDIATELY MERO D'APPROBATION SEULEMENT.		

REÇU EN BONNE CONDITIONS / RECEIVED IN GOOD CONDITION TVQ/QST# 1017327981 TQ001 TPS/GST TVH/HST # 140223934 RT0001

DAT

```
BILL OF LADING
                                                                      PEC 777693
                                                               No:
                                            Ship Date 23Jul12 at 10:57 From PFW
   Ship From:
   THYSSENKRUPP MATERIALS NA
                                            Probill
                                            Via
                                                 VIM TRANSFER
   2821 LANGSTAFF ROAD
   CONCORD, ONTARIO L4K 5C6
Tel: 905 669 9444 Fax: 9057389033
                                                  CONCORD
                                            FOB
                                            Frt PREPAID
                                            Route 0- 0 Manifest
                                            Vhcle
                                                               Trailer
                                            Slp STAN IVERS (905-532-1350)
   Ship To: ( 1)
DART AEROSPACE
                                            Sold To: (20115)
                                            DART AEROSPACE
______
                     BILL OF LADING
                Heat Number Tag No
                                                  Quantity PCS | 12 FT 1 |
                                                                            Wt LBS
                                                                           140
               21112151
                               88410
                         ______
 12) Our Order PEC-472 $\dagger*83- 12 Your PO # 17463
  ALUMINUM SHEET 6061 T6
.0810 Nom X 48.0000 X 144.0000"
                Heat Number Tag No
25872/01/00 88035
                                                               PCS
                                                  Ouantity
               25872/01/00
                                                  96.00 SFT
                                                              2
                                                                               105
 13) Our Order PEC-472083- 13 Your PO # 17463
  ALUMINUM SHEET 6061 T6
   .1250 Nom X 48.0000 X 96.0000"
                                                  Quantity PCS 64.00 SFT 2
                                                                           Wt LBS
                Heat Number Tag No
                                                                           109
               30286/01/00
                              88036
 14) Our Order PEC-472 $\dagger*83 - 14 Your PO # 17463
 Part # PLATE ASTM B 209 QQ-A-250/12 Rel # ALUMINUM PLATE 7075T7351 2.50" THICK X 3.2500" X 72.0000"
  *** BACK ORDER ***
                                                       Tags PCS | 13 26 |
                                                                              LBS
                                                                            2151
                                            TOTAL:
                     ** Chemical Analysis ***
Heat Number
201209117
201210006
201210303
21112151
245298
25872/01/00
30286/01/00
HK079 712
SF29688
Z00216020
    Page: 3 ....Continued
  TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE
            RAPPORTÉES IMMEDIATEMENT.
     ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY
```

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT.
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

DATE

PEC 777693 BILL OF LADING No: Ship Date 23Jul12 at 10:57 From PFW Ship From: Probill THYSSENKRUPP MATERIALS NA VIM TRANSFER 2821 LANGSTAFF ROAD Via CONCORD, ONTARIO L4K 5C6 Tel: 905 669 9444 Fax: 9057389033 CONCORD FOB PREPAID Frt Route 0- 0 Manifest Trailer Vhcle STAN IVERS (905-532-1350) Slp Sold To: (20115) Ship To: DART AEROSPACE DART AEROSPACE BILL OF LADING

Z00240017 Z00248009

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR TO SHIPPING.
ATTN: CHANTAL/LINDA

\*\* ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER \*\*

\*\* REFERENCED ON IT \*\*

TOTAL 1 BDL, 2 SKIDS GW. 2477 LBS

Page: 4 .... Last

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ETRE RAPPORTÉES IMMÉDIATEMENT. ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT. MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

DATE

DART AEROSPACE

STAINLESS STEEL SQ BAR 303 STAINLESS 1.00" X 151.0000" PART NO.

PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-777693-001

23Jul12 Pg 1/1

Signed by:

Accialerie

CERTIFICATO DI COLLAUDO ABNAHMEPRUEFZEUGNIS INSPECTION CERTIFICATE CERTIFICAT DE RECEPTION EN 10204 (2005), 3.1

35100 VICENZA (Italia) - Viale della scienza, 25 z.l. Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4

Cliente / Bestelen Purchasson Client VALBRUNA CANADA LTD CON-MILTON, ONT L5T 5Z1-CAN

Avviso di Spedizione: D-V108000486 Universeige/Action Lengt

Certificato nr: MEST576706/2008/

Produttors: ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: 705001820 STOCK

Conterma ordine nr. El07004722 Warke Out Order Fell nr.

Marchio di Fabbrica: de chen des L alerameticas Trada mark Sigla de l'usina produtica

Oggetto Prove: - Annealed Cold Drav

Tipo di Elaborazione; E+AOD

Pusizone del Co laudatore Stompol das Workssachearständiger



Specifiche:

VSI 0 303 A,CF ASME SA320 2004 BBF o ASTM A370 2007A . QQ-S-764 B/2 303 A

(0) SEC.II PT.A 2004 EDITION ADD,2006 (1) Chemical analysis only.

AMS 5640 U \$30300 A ASTM A314 97 S30300 ASTM A582 2005 530300 A AMS 5640 U TYPE1 A ASTM A320 2007A 88F (t) MIL-S-852 B/1 308

OChemical analysis only.

Qualitá: T-303

Marca: VPAU188Z VALPLUS

Punzonatura: T-303

MT. OVIDSTON	A DAZIONALISMOSTAN				te arrestantify moundance	irafia				
	Oggetto Gegenstand Productions plant Drescrip, du product	At	ensioni - In Neuropa Pinancios Pinancios	Tolleranza Toleranz. Allerzace Toloranco	Lunghezza - Ft Lunge Length Lengther	Colata Schriebe Heal Coulsy	Pezzi Stirbadii Poces Poces	Peso - L8 Serials Weight Parts	Lotto nr. Lære. Lotre. Letre.	
0060	Square	1,000	0 x 1,0000	484-06B	13 / 13	245298		1.790	706701180	

Sono state soddisfatte tutte le condizioni richieale. Tie pession Anforceuropen sind 1 Antopo artist. The material has been four artist in accordance valid de receivements to exact via de nouvé conforme aut perganos.

Controllo antimoscolanza: OK Versechsungnitus; epetralumiyuset i Antimidig tisting portormet: OK Controll on innisinge talbra s.

Controllo visivo e dimensionalo: soddis"a lo seigenze! Boderfaute und frumestante ohie Betralandung Vauel inspecies and d'installand inschoosale lactory Control e vigal et dimensiona instituasie.

			-	1											
TEST	Provettal Automate Southern Epideria Algebra Ren's Bore Clare, Door Vide Dark, Telchana Leg, War spote MM	۰F	Posit. Seggio	Snervamenta Snervamenta Yild Surf. I merentape Rp 0,2% k.s.i.	Snervamento Stationers You State Languages	Resistenza  Judistrator  Ter des hangli  Resistence 2 tracker  Rm  K.S.I.	Best	amento	Syst Secuti	Zione Maria Alpania RA	Resilie	2000C		Urezza Hearte Herrica Dando HB	
Anton Jan	ri richiesti 1 Apprillazione value An Erapoliti	m m		-	-	-	-	-	-	•	-			140 255	
A	12,5	58	L	80		102		37	Τ-	50			242		1

Grain size for ASTM E112

Hitalongitudosistanos, Ostrosumalokure, TaTangenalukutanyur irul

#### Analisi chimica

										***					
	min -	:	1,50	17,00			8,00	-		0,25	1:	-	-	-	-
Schmelza/Couléa	max 0,150	1,00	2,00	19,00	0,00	1,00	10,00	-	0,100	0,35	0,40	-	-		
	C %	St %	Mn	% Cr%	Mo %	Cu %	Ni %	Co %	P%	S%	Zr %				
245298	0,053	0,47	3.7	9 17,24	0,38	0,71	8,13	0,10	0,029	0,28	0,01				

Produced without class I-II Ozone depleting substances. Solution heat treated free from continuous carbide network.

Annealing temperature: 1940°F for 1h/water.

Micro and macro etch test: OK Material is DFARS Compliant

Mater at tree from Mercury or raulo-activity contamination

Melted and manufactured in Italy No welding or weld repair Material free from Mercury or raufo-activity
The Quality Menagement System is Corolled ecc. Pressure Equipment Director (97:23/EC) Annex 1.s. 4.3 by TUEV and LLOYO'S

Il collaudatore di stabilimento / der Werkssachverständige: Vicenza,14/01/08 Warks inspector / L'agent d'usine Pagina - 1 di 1 M. Rizzotta Kulo (Mod. MCER

Certificate of Mill Test Results

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511 .50" x 1.250" X 144.0000" PART NO.

PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

BL PEC-777693-003

Signed by:

23Jul12

Pg 1/2



KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO MI 49048

	OF in
The same of the sa	

#### CERTIFIED TEST REPORT http://Online.KaiserAluminum.com

MALAIMAZOO, II	11 43040								
CUSTOMER PO NUMB	ER: CUS	TOMER PART NUMBER:	PRODUCT DESCRIPTION:						
PEC-236648-4	AL	REC00139	0.500 X 1.250 SQ	COR RECT BAS	₹				
KAISER ORDER NUMB	ER: LINE ITEM:	SHIP DATE:	KAISER LOT NUMBER:	ALLOY:	TEMPER:				
612835	004	02/03/2012	Z00248009	6061	T6511				
WEIGHT SHIPPED:	QUANTITY:	B/L NUMBER:	DIAM/DAF/THKNS:	WHTAIW	LENGTH:				
494.000 LB	56.000 PC\$	602545			12.000 FT				
SHIP TO:			ISOLD TO:						

THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA

#### **Actual Physical Properties**

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARI	DNESS	CONDUCT.	BEND
200248009	0001	1	45.9	43.1	15.5	RE	91	N/A	N/A
Z00248009	0001	2	47.0	44.1	16.2	RE	92	N/A	N/A
200248009	0001	3	46.5	43.6	17.1	RE	94	N/A	M/A
200248009	0001	1 4	47.1	44.5	17.1	RE	91	N/A	Ņ/A
200248009	0001	5	46.5	43.8	16.5	RE	88	N/A	N/A
700248009	0001	6	46.0	43.0	<u>-</u> 7.9	RE	94	N/A	N/A
200248009	0001	7	45.6	42.3	15.9	RE	93	N/A	N/A
200248009	0001	8	46.2	43.3	16.1	RE	91	N/A	N/A
200248009	0001	9	46.5	43.7	17.9	RE	93	N/A	N/A

## Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Min	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot	
Maximum	0.80	0.70	0.40	0.15	1.20	D.35	0.25	0.15	NA	NA	NA	0.05	C.15	
Minimum	0.40	0.00	O.þ.5	0.00	0.80	J.C4	0.00	0.00	NА	NA	NΑ	0.00	0.00	
101084	.73	. 37	. 29	.08	.94	.10	. 08	. 03	.00	.00	.00	.01	.03	

#### Applicable Requirements:

ASTM-B221-D8-STENCILED | ASME-SB221 1993 SECT II AMS-QQ-A-200/8 UNS#96061 (T6511 also conforms to T6-not applicable to other tempers)

#### Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA

Plant Serial: 00028007

Kaiser Order Number: 612835

Line Item: 004

Page 1 of 2

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511 .50" x 1.250" X 144.0000" PART NO.

#### PO/Rel 17463

We certify that this is a true copy of the report fumished by the producer of the metal, or data resulting from tests made in approved labs.

#### Certificate of Mill Test Results

BL PEC-777693-003

23Jul12 Pg 2/2

Signed by:

ALLINIIN LINII FABRICATED PRODUCTS

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048



#### **CERTIFIED TEST REPORT**

http://Online.KaiserAluminum.com

#### CERTIFICATION

Kaiser Aluminum Fabricated Products, LIC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Alex Yeh, Quality & Technology Manager

Plant Serial: 00028007 Kaiser Order Number: 512835

Line Item: 004

Page 2 of 2

PO/Rel 17463

Certificate of Mill Test Results

BL PEC-777693-006

23Jul12 Pg 1/1

DART AEROSPACE ALUMINUM FLAT BAR 6061-T6511 1.00" x 4.00" X 144.0000" PART NO.

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.



SERVICE CENTER METALS 5850 Quality Way Prince George, VA 23875

#### CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

Signed by:

OUR ORDER NUMBER 152409 3 DIE NUMBER DATE OF SHIPMENT CERTIFICATION

ThyssenKrupp Materials NA

162248 CUSTOMER PO

MANIFEST NUMBER

RB0128

6/19/2012 SALESPERSON

ASTM-B221-12 Stencil Continuous

ThyssenKrupp Materials NA PEC

PEC-239753 CUSTOMER PART NUMBER

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification.

ALLOY / YEMPER 6061-T6511 DESCRIPTION

SPECIFICATION David Schroeder

AMS-QQA-200/8-07

Quantity Certified 1,482 lbs

26 pcs

RB0128

SCRB 1.000x4.000

Items produced and certified as 6061-T6511 also

revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the meet the requirements of 6081-T6 description, and that samples representative of the material met the composition limits and had the mechanical properties shown. SCIN

extrusions are manufactured in the USA.

	Inical Properties  Lot No.	 Test Date	Oltimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
1	201210303	 	50.2	46. <del>9</del>	14.9

Chemical Composition for Aluminum Alloy 6061 Others Cast Number Alloy <u>Si</u> Fe Melt Source: <u>Cu</u> <u>Mn</u> Мg <u>Cr</u> Zn Ti AL Each Total United States of America 0512135 6061 0,73 0.38 0.31 0.09 0.84 0.09 0.07 0.02 97.47 0.05 0.15

Print Date: 6/19/2012

Cabrin & Microins Director of Quality & Technical Sandons

Certificate of Mill Test Results BL PEC-777693-008

DART AEROSPACE ALUMINUM FLAT BAR 6061-T6511 1.50" x 2.00" X 144.0000" PART NO.

PO/Rel 17463

RB0138

We cartify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

	DL I EC- / /	"
Signed by:		

OUR ORDER NUMBER d c A a a a 23Jul12 Pg 1/1



Quantity Certified

extrusions are manufactured in the USA.

### SERVICE GENTER-METALS 5850 Quality Way Prince George, VA 23875

32 pcs

1,369 lbs

#### CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

				152110 12	١
art 10	MANIFEST NUMBER	DIE NÜMBER	DATE OF SHIPMENT	CERTIFICATION	_
ThyssenKrupp Materials NA	161536	RB0138	6/8/2012	ASTM-B221-12 StencilContinuous	
HIP TO	CUSTOMER PO	ALLOY! TEMPER	SALESPERSON	* D * .	
ThyssenKrupp Materials NA PEC	PEC-239616	6061-T6511	David Schroeder	SPECIFICATION AMS-QQA-200/8-07	
0 10 0 10 1 4 4 4 4 4	CUSTOMER PART NUMBER	DESCRIPTION		7100-130271-200/Q-Q7	

SCRB 1.500x2,000 We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification Items produced and certified as 6061-T6511 also revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the meet the requirements of 6061-T6 description, and that samples representative of the material met the composition limits and had the mechanical properties shown. SCA

และเกร	incar Properties	Test Date	Ultimate Tensile	Yield Strength	Percent
<u>Tests</u>	Lot No.	-	Strength (KSI)	<u>(KSI)</u>	Elongation
91 92 93 94 95 96	201209117 201209117 201209117 201209117 201209117	05/25/1 05/25/1 05/25/1 05/25/1 05/25/1	2 49.9 2 49.2 2 49.1 2 49.3	49.2 46.8 46.4 46.0 46.7	14.9 15.1 15.6 16.8 15.2
90	201209117	05/25/1	2 49 <b>.3</b>	45.9	15.3

Chemical Com	rbosinon no	r Alumin	IUM AII	oy ovo									
Cast Number	041	m	-	_			_				Oth	ers	
<u>Jaor Hamper</u>	Alloy	<u>Si</u>	<u>Fe</u>	<u>Cu</u>	<u>Mn</u>	Mg	<u>Cr</u>	<u>Zn</u>	<u> Ii</u>	<u>AL</u>	<u>Each</u>	<u>Total</u>	Melt Source:
													United States of America
031424	6061	0.77	0.38	0.35	0.11	0.91	0.09	0.06	0.02	97.31	0.05	0.15	
032224	6061	0.72	0.38	0.30	0.09	0.86	0.09	0.06	0.02	97.48	0.05	0.15	
032725	6061	0.74	0.36	0.32	0.10	0.84	0.09	0.08	0.02	97.45	0.05	0.15	

Print Date: 6/8/2012

Calvin J. Windins. Director of Quality & Technical Services

Rev. 9/23/11 - UMS

Doc No. 136534 Indexed 14Jun12 by slssup1

#### Certificate of Mill Test Results

DART AEROSPACE

ALUMINUM ROUND BAR 6061-T6511 1.00" DIA X 144.0000" PART NO.

PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

BL PEC-777693-010

23Jul12

Pg 1/2

KAISE	
ALUMINU	I RAT
ISABRICATIED PRODU	ICTS

#### CERTIFIED TEST REPORT

Signed by:

http://Online.XaiserAluminum.com

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048

CUSTOMER PART NUMBER: CUSTOMER PO NUMBER: PRODUCT DESCRIPTION: 015246-2 KAISERSELECT PRECISION ROD 1.000+/-.004 PEC-239097-5 KAISER LOT NUMBER. ALLOY: TEMPER: KAISER ORDER NUMBER: LINE ITEM: SHIP DATE: 16061 T6511B 620138 700216020 005 05/11/2012 WEIGHT SHIPPED: BIL NUMBER: DIAM/DAF/THKNS: WIDTH: LENGTH: QUANTITY: 12,000 FT 2922.000 LB 264.000 PCS 603400 SHIP TO: SOLD TO:

THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA

#### Actual Physical Properties

REFERENCE	DASH#	SAMPLE	#	UTS (KSI)	YTS (KSI)	ELONG*	HARI	NESS	CONDUCT.	BEND
Z0021602C	0001		1	51,2	49.0	16.9	RE	94	n/a	N/A
Z0021602C	0001		2	50.9	48.6	16.3	RE	93	N/A	N/A
Z0021602C	0001		3	50.7	48.6	16.9	RE	93	N/A	$N/\Lambda$
Z0021602C	0001		4	50.1	47.4	15.8	RE	93	N/A	N/A
Z0021602C	2001		5	51.1	48.3	16.6	RE	94	N/A	N/A
Z0021602C	0001		6	51.6	49.3	16.4	RE	94	N/A	N/A
Z0021602C	0001		7	51.2	48.9	17.3	RE	95	N/A	N/A
200216020	0002		1	49.7	47.2	17.4	RE	94	N/A	N/A
Z0021602C	0002		2	49.6	47.0	16.6	RE	95	N/A	N/A
Z0021602C	0002		3	50.1	47.9	15.7	RE	94	N/A	N/A
Z0021602C	0002		4	50.3	47.9	16.9	RE	94	N/A	N/A
Z00216020	0002		5	49.5	47.9	16.9	RE	93	N/A	N/A

#### Chemical Composition (wt%), Aluminum Remainder

				_										
LIMITS	Si	Fe	Çu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot	
Maximum	0.80	0.70	0.4C	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15	~
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00	
101538	.72	. 32	. ⊉8	.09	. 95	.09	.05	.03	.00	.00	.00	.01	.03	

#### Applicable Requirements:

PER ASTM-B221-08, STENCILED ASME-SB221 1998 SECT II PER AMS-QQ-A-200/8 UNS# A96061 MEETS ALL SPECIFICATION REQUIREMENTS FOR 6061-16511/T6 ELEVATED MINIMUM MECHANICAL PROPERTIES AS FOLICWS: UTS = 42.0 KSI MIN YIELD - 38.0 KSI MIN ELONGATION = 10.0% MIN

#### Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA

Plant Serial: 00043535

Kaiser Order Number: 620136

Line Item: 005

Page 1 of 2

Certificate of Mill Test Results

DART AEROSPACE

ALUMINUM ROUND BAR 6061-T6511 1.00" DIA X 144.0000" PART NO. PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs. BL PEC-777693-010 23Jul12 Signed by: Pg 2/2



KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048



CERTIFIED TEST REPORT

http://Online.KaiserAluminum.com

CERTIFICATION

Kaiser Aluminum Embricated Products, LLC hereby certifies that metal shipped under this order has been inspected and testad and found in conformance with applicable specifications forming a part of the description set forth in Kaisen's sales acknowledgement form. Any warranty is limited to that shown on Kaisen's general terms and conditions of sale. Test reports are on file, subject to examination.

Alex Yeh, Quality & Technology Manager

Plant Serial: 00043535 Kaiser Order Number: 620136

Page 2 of 2

Line Item: 005

Doc No. 134765 Indexed 15May12 by slssup1

PO/Rel 17463

DART AEROSPACE ALUMINUM SHEET 6061 T6 .1250 Nom X 48.0000" X 96.0000" PART NO. We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

#### Certificate of Mill Test Results

BL PEC-777693-013

23Jul12 Pg 1/2

Signed by:



Abnahmeprüfzeughis 3.1 (EN 10204) Inspection certificate - mill certificate

8Nr/Los/Teillos

Lot/No./Part

30286/01/00

cast no.

AB-Pos.

ord.-Item.

04

Zertillziert nach / certified to ISO 9001, ISO/TS 16949, EN/AS 9100, ISO 14001, NADCAP

85283529 06/9 Nr.:

Rev. 0

Seite / page: 1 von / of 2 Datum / date: 2012 04 11

Auftraggeber / customer:	Bestell Nr. / order no.:	PEC-237401
ThyssenKrupp Materials NA	Datum / date:	2012 03 05
2821 Langstaff Rd CDN-L4K 5C6 CONCORD,ON	Auftragsbest. Nr. / order confirm. no.; Datum / date:	638423 2012 03 06
Warenempfänger / consignee: ThyssenKrupp Malerials NA	Lieferschein Nr. / delivery note: Datum / date:	85283529 2012 04 30
2821 Langstaff Rd CDN-L4K 5C6 CONCORD,ON	Akkreditiv Nr. / letter of credit no.:	
Engkunde, Bestell-Nr. / Your cust., ord. no.:		

. Lieferbedingungen / techn. spec.: 2Q-A-250/11, 08.1997
B 209 - 07 al meets also the mech. properties of AMS 4027N, 18, but not marked H35.2-2009 SB 209, 2007

Guss Nr. Werkstoff Kollo Gewicht netto Sik. material packno weight net 01/0049556/2 6384230007 4003,527 lbs 73

	30200/01/00	01/004333	000423002 0001. 0004230000 4001						1020 108	70	
Chemische Zo	usammensetzi	ung / chemic	al comp	osition	:[%] Ge	wichtsa	nteile / w	eight pr	oportion	(OES)	
Gusa Nr. / cast no.	AMAG design	ation									
01/0049556/2	6061.1	Si	Fæ	Cu	Mn	Mg	Cr	HI	<b>2</b> n	Ti	
	actual	9.68	0.43	0.26	0.12	0.93	0.18	0.01	0.05	0.08	

		ł	<del></del>				
Zugversuch	ı / Tensile t	eşi					
BNr/Los Lot/No.	Zustand temper	Richtung direction	Rm [ksl]	Rp0.2 [ksl]	A2" [%]		
30286/01	T6 .	LT	47,4	41,0	15		
30286/01	T6	LT	47,1	40,6	14		ï
30286/01	76	LT	47,1	40,6	14		
30286/01	T6	LT	47,1	40,8	14		
30286/01	T6	LT	47,0	40,3	16		
30286/01	T6	LT	47,0	40,3	15		
30286/01	T6	LT	47,1	40,5	15		
30286/01	T6	LT	47,4	40,6	15		
30286/01	T6	LT	47,9	41,0	15	i	

AM AG rolling GmbH, Postlach 32, A-5282 Ranshofen, Österreich – www.amao.a: AffIAG rolling GmbH, P.O. Box 32, A-5282 Ranshofen, Austria – www.amao.a:

#### Certificate of Mill Test Results

DART AEROSPACE

ALUMINUM SHEET 6061 T6 .1250 Nom X 48.0000" X 96.0000" PART NO. PO/Rel 17463

We certify that this is a true copy of the report furnished by the produces of the metal, or data resulting from tests made in approved labs. BL PEC-777693-013

23Jul12 Pg 2/2

Signed by: P



Abnahmeprüfzeugnis 3.1 (EN 10204) Inspection certificate – milf certificate

Zertifiziert nacht: certified to ISO 9001, ISO/TS 16949, EN/AS 9100 ISO 14001, NADCAR

Nr.: 85283529 06/9

Rev. 0

Seite / page: 2 von / of 2 Datum / date: 2012 04 11

Es wird bestätigt, dass die Lieferung geprü't wurde und den Vereinbarungen bei der Bestellung entspricht. We hereby certify Ihat the material described above has been lested and complies with the terms of the order contract.

Werkssachverständiger factory specialist	1	E-Wail / e-mail
Josef Klampfer		j.klampfer@amag.at

Herstellerland: Österreich / goods origin: The goods are of Austrian origin. Maschinall erstellt - Gulfig ohne Unterschrift / Automated - valld without being signed.

> AM AG rolling GmbH, Postfach 32, A-5282 Ranshoter, Österreich – <u>www.amac.ar</u> AM AG rolling GmbH, P.O. Box 32, A-5282 Ranshoter, Austria – <u>www.amag.at</u>

# THYSSENKRUPP MATERIALS NA DART AEROSPACE

62898

GLOBAL STAINLESS STEEL INC.

The state of the s

STAINLESS STEEL SHEET 304-2B .1200 Nom X 48.0000" X 120.0000" PART NO.

전후 명의: Didertes.

i) the sist.

RALA

CONSIGNER

PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate	of Mill	Test	Results
	CAN TANIER	エムシェ	エグたわれている

BL PEC-777693-002

23Jul12 Pg 1/1

# 产品质量证明书 MILL TEST CERTIFICATE

工态大明金属制品有限公司 HANGSU DAMING METAL PRODUCTS CD., ETD NAVESU DAMING METAL PRODUCTS CD., ETD

this amount this is

аликезско ізів, Тінапаарралы жикі колф Париження ріколике, стана True >1142(550)57

Date

部 名: COLD FIGURED STAINLESS Comprisedity STEEL SHEET, SLIT EDGE

络号; M120302001 Invaice No. 发行日间: 2012-4-15

	]		]	******	THIR ?				1	रिसिध			T		T			化郵	超 好			
]			AWEL		OCH # 25A	TI.	ER			Tornile '	Fost	获值	1				Char	ical Com	Sosphul (	%)		
加加	Frenkriki No.	於野 Type	Surface Flaished	IKE Trickness MA	武王 (旧以) (加)	光烈 Length MM	Weigh Weigh	标准 Specification	Mps	抗症法 使 Red Mpa	4 对种本 V	現成 Herdness HVH和B	粉を中STEEL NO.	が号 HEAT NO.	С	Si	Mn	ŀ	\$	rii	Cr	и
1	P001693950	304	25	0,5	1259	2438	P10.64	ASTM AZ40	275	731	65	167	QW/0136C	SF25811	0.0510	0.5000	1,9828	0.0021	0.0057	8.02	1826	1
2	F001993981	304	201	(1.5	1210	3048	90,300	ለያፕዝ ለ240	278	731	65	107	QWA0130C	SF28811	0.0510	0.5060	1.0520	0.0321	1900.0	8,02	18.26	1
J	P001715073	304	28	0.8	1239	3048	959.8K)	AS 174 A248	270	731	60	167	OW604018	SF2BAC9	0.0458	0.5120	1.0540	CLC2DA	0.0064	9,02	19.32	7
1	P001689219	304	26	7.6	1339	2435	1818.74	ASTH A24B	273	5N2	62	169	QWB28700	SF31/003	0.9378	0.4460	1.0270	0.0185	0 0022	\$.05	10.17	1
5	1001683220	304	รถ	1.6	1219	3046	1031.45	ASTM A240	273	692	62	165	GN92076B	SFXXX3	0.0373	0.4486	1.0270	0,0105	0,00022	8505	10 17	<del></del>
6	P601683221	301	25	1,5	1210	3040	911.74	AUTM A240	273	987	62	168	CW020700	5F30003	0.0378	0.4380	1,0270	0.0100	6.0022	8.G5	18.17	1
	P301720563	304	29	2.0	1218	:1046	930,089	ASTM 6240	283	76%	58	173	OM/09994	SF211445	9.6-28	0,1720	1.0360	0.0100	0.0051	non	18,17	1
B	P001604283	304	28	3.0	1219	,243B	1409.00	AGEM AZMO	201	i (413	61	175	CERTORUE	SFŞRUUB	9.0501	0,4510	1.1420	0,0348	U.0G34	8.05	18.44	1
3	1/001864295	HIC	26	30	1510	2048	1467 GA	ASTM A240	591	960	Ğİ	175	VESTORNO	SP2068#	0,0504	0.4610	1.1420	G DOM:	0,0004	8.65	18 34	7
53	(100(705)6)8	301	28	30	1219	2439	1458 30	ASTM A240	287	714	.55	174	QUIC0022A	SF30004	0.0578	0,4160	3,0270	0.0166	0.0022	6,05	10,17	7
1 11	P001705121	304	28	2.5	1219	3048	1303,94	A\$YM A240	287	754	.55	174	QUCRO23A	SF30003	0.0278	0,4480	1.0270	0.0186	0.0022	8 09	18.17	1
12	PS/03699702	304	NO 4+	1,5	1219	2428	1965.45	ONSA MTEA	287	664	部	160	OWC01619	9F30027	0 0478	0,5270	1,04.50	0,0306	9.0049	8 04	10.22	7
13	14X11699169	304	25O.4+	2.5	1219	304A	1076.55	ASTIA AZ40	267	65%4	50	164	Gratagwo	SF30027	0.0476	£.5270	1.0650	a about	0 0040	A D1	15,22	7
12	PRO1098725	304	190.6+	20	1219	2400	1983 80	ASTM A24G	315	647	63	83	KA11234070A10	C3109595	COFR.O	D21500	1.0900	0.0300	0 OCISD	5.1	18.21	9,046
15	P001703038	304	NO 44	2.5	1219	2436	187030	astm a240	257	714	55	174	CIUCO023A	SF30003	0.0378	2,4480	1.0270	0.0186	0.0022	¢ 05	18.17	1
19	P\$QY703C37	304	NO ne	2.5	פוקר	2436	1070 30	A6114 A240	287	714	55	174	CH JCIO 23A	\$F30003	0.0378	0.4400	1.0270	2 0 I RO	31.0022	8 OS	13.17	<u> </u>
1 48E 1	Remarks >												NE TERMS II THAN A S		*******	·				7 8 2 7		

尺寸空型能: 自体 Aire and Stathers . Consequently ALT HER BEY CHASTLY THAT THE MATERIAL SPECIFIC AND STATEMENT OF THE STATE

Signed by:\_

Doc No. 136659 Indexed 15Jun12 by slssup1

DART AEROSPACE ALUMINUM FLAT BAR 6061-T6511 .50" X 6.00" X 144.0000" PART NO.

PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate	ഹ്യ <sup>®</sup>	Mill	Test	Recul	110
	OUT.	TAILURE	TEST	INCSUI	US

BL PEC-777693-004

23Jul12 Pg 1/1



Quantity Certified

#### SERVICE CENTER-METALS 5850 Quality Way Prince George, VA 23875

27 pcs

#### CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

6/14/2012

David Schroeder

DATE OF SHIPMENT

Signed by:

152110 CERTIFICATION ASTM-B221-12 StencilContinuous

ThyssenKrupp Materials NA ThyssenKrupp Materials NA PEC

extrusions are manufactured in the USA.

1,143 lbs

161978 CUSTOMER PO PEC-239616 CUSTOMER PART NUMBER

MANIFEST NUMBER

ALLOY/TEMPER SALESPERSON 6061-T6511 DESCRIPTION

PL0102

SPECIFICATION AMS-QQA-200/8-07

OUR ORDER NUMBER

PL0102 PL .500x6.000 We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification Items produced and certified as 6061-T6511 also revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the meet the requirements of 6061-T6 description, and that samples representative of the material met the composition limits and had the mechanical properties shown. SCI

DIE NUMBER

	inical Properdes Lot No.	lest Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elangation
1	201210006	06/09/12	49.1	47.0	14.5
2	201210006	06/09/12	50.8	48.5	15.0

Chemical Con	position fo				R		'						
Cast Number	Alloy	<u>Si</u>	<u>Fe</u>	Сu	Mn	<u>М</u> д	<u>Cr</u>	<u>Zn</u>	<u>11</u>	<u>AL</u>	Othe <u>Each</u>	ers <u>Total</u>	Melt Source United States of America
060421	6061	0.74	0.37	0.33	0.10	0.90	0.09	0.08	0.02	97.37	0.05	0.15	

Print Date: 6/14/2012

Cabin J. Minding Director of Quality & Technical Services

Certificate of Mill Test Results

DART AEROSPACE

ALUMINUM SQUARE BAR 6061 T6511 1.250" X 144.0000" PART NO.

PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

BL PEC 777693-007

Signed by:

23Jul12

Pg 1/2



KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 4904B

The state of the s	Din.
Servent of the serven	

CERTIFIED TEST REPORT http://Online.KalserAluminum.com

CUSTOMER FO NUMBER	₹:	CUSTOMER	PART NUMBER:	PRODUCT DESCRIPTION	PRODUCT DESCRIPTION:						
PEC-240344-2		ALSQ00	100	1.250 SC SQ BAR							
KAISER ORDER NUMBE	R: LINE ITEM:		SHIP DATE:	KAISER LOT NUMBER:	ALLOY.	TEMPER:					
623482	002		07/06/2012	Z00240017	6061	T6511					
WEIGHT SHIPPED:	QUANTITY:		B/L NUMBER:	DIAM/DAF/THKNS:	WIDTH:	LENGTH:					
1058.000 LB	48.000 PC	<b>;</b> \$	603828			12.000 FT					
SHIP TO:		1	.1	SOLD TO:	<del></del>						

THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA

#### Actual Physical Properties

		1								
REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	rlong*	HARI	ONESS	CONDUCT.	BEND	
200240017	0001	1	52.8	50.5	16.6	RE	93	N/A	N/A	
200240017	0001	2	51.6	49.0	17.9	RE	93	n/a	N/A	
200240017	0001	3	51.9	49.4	17.5	RE	94	N/A	N/A	
200240017	0001	4	52.9	50.7	16.2	RE	93	N/A	N/A	
200240017	0001	5	52.5	50.1	17.9	RE	94	N/A	N/A	
200240017	0001	l€	51.4	49.0	17.7	RE	94	N/A	N/A	

#### Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Çu	Mn	Mg	Cx	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA		0.05	
Minimum	C.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NΑ	ХK	0.00	0.00
101758	. 67	.26	.⊉4	.09	. 92	.09	.02	.03	.00	.00		. 01	

#### Applicable Requirements:

ASTM-B221-12 STENCILED | ASME-SB221 1998 SECT II AMS-QQ-A-200/8 (2007) UNS#A96061 (T6511 also conforms to T6-not applicable to other tempers)

#### Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA

Plant Serial: C0050003

Kaiser Order Number: 623482

Line Item: 002

Page 1 of 2

Certificate of Mill Test Results

DART AEROSPACE

ALUMINUM SQUARE BAR 6061-T6511 1.250" X 144.0000" PART NO. PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the meral, or data resulting from tests made in approved labs. BL PEC-777693-007

Signed by:

23Jul12

Pg 2/2



KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048 A Gust

CERTIFIED TEST REPORT http://Online.KaiserAluminum.com

#### CERTIFICATION

Kaiser Aluminum Fabricated inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test regorts are on file, subject to examination.

Calvin Latting, Quality & Technology Manager

Plant Serial: 00050003

Kaiser Order Number: 623482 Line Item: 002

Page 2 of 2

 $\boldsymbol{\omega}$ 

THYSSENKRUPP M	ATERIALS NA
----------------	-------------

Certificate of Mill Test Results

DART AEROSPACE

ALUMINUM ROUND BAR 6061-T6511 3.50" DIA X 144.0000" PART NO.

PO/Rel 17463

Quantity Shipped

1900

BÆ

339465

Delivery Id

4330967

3.5ER+

CastomerPart No.

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

	BL PEC-777693-011	23Jul12
igned by:	· · · · · · · · · · · · · · · · · · ·	Pg 1/2



Sapa Industrial Extrusions
53 POTTSVILLE STREET

CRESSONA, PA 17929-0187

Sapa Extrusions Inc., a Subsidiary of Sapa AB

Invoice To Customer

THYSSENKRUPP MATERIALS NA INC 2821 LANGSTAFF ROAD ATTN: ACCOUNT PAYABLE

CONCORD, ON - 1.4K-5C6

Ship To Customer

THYSSENKRUPP MATERIALS NA INC 282! LANGSTAFF ROAD

CONCORD, ON - L4K5C6

Certified	Inspection	Report
-----------	------------	--------

ᄖ

Cert Nambur Paga SAPA591092 Page Inf2 Cert Crestion Date Cert Print Date

25 JUN-12

Item Description ACC-U-LINE

3.500 DIA +/-.012

SECT 500328

144,000 IN LN

FIN M-MILL

6061/16511H

Extraded ACC-U-ROD

W/F L1.314 F 1 CS 3.5

Marking CONTINUOUS:

25-JUN-12

Soles Order Number Customer P/O Line No. 1100483665 PEC-240110-001 Date Shipped

25-JUN-12

G03305526

Item No. Rev

ftent No.

Specification ASTMB221 REV 12 AMS-QQ-A-2008 REV ASMESE221 REV 09

UNSWA95061 REV SATIJ454 RGV

Meets 6061-T6511H, 6061-T6511 REV

Applicable Specifications, Revisions and Exceptions

COMPOSITION NOTE: The values for Others Each' and Others Total' bave met the liquits as shown on

this certified inspection report. Remainder is Aluminum.

PCS

Legal Statement

We hereby certify that, unless otherwise indicated, the material enverted by this tenant has been manufactured, inspected, and we notely extray that, mass a merwise interaction, the material entering of the equiversal described herein, including any specifications forming a part of the description and that samples representative of the material met the composition and had the mechanical properties shown on the face of this certification. Also, note that mercury is not a portral contaminant in pluminum alloys and neither it nor any of its compounds are used in the manufacture of our product. This certification is not to he reproduced in partial form without prior written approval of our Quality Assurance Dept.

950

William Martin III Tech/Quality Manager

956

25-JUN-12

Quantities per Lot / Pockages Weight Lm Number ' ÚDÍM . 3034 (4534) Grun eier tille 🙈 PCS G12-PKG1711554 21112151 956 950 G12-PKG1711554 21112151 G12-PKG1711554 2[11215]

21112151

Composition Limits

G12-PKG171 1:558

Doc No. 137558 Indexed 28 Jun 12 by slssup1

THYSSENKR	MIA	TERL	AT.	S	MA

Certificate of Mill Test Results BL PEC-777693-011

Pg 2/2

DART AEROSPACE

ALUMINUM ROUND BAR 6061-T6511 3.50" DIA X 144.0000" PART NO.

PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Sapa Industrial Extrusions 53 POTTSVILLE STREET

CRESSONA, PA 17929-0187

Cert Number Page SAPA591092 Page 2 of 2 Sales Order Number Customer P/O Cert Creution Date Cert Print Date 1100483665 PEC-240110-001 25-JUN-12 25-JUN-12

Signed by:\_

:	Alloys	Mia	Max	NUME OF STREET	Max	SST SECTION	Mux	grand 1 - Min	Mari	Min	(g Mas	35 pa 2003 35 pa 2003 31 pa 2003	Max	2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	ZA .
Ī	6061	0.40	0.80	-	0.70	0.15	0.40	***	0.15	0.80	1.20	0,04	0.35		0
Ì	Alloy	7	n		1611 WO 182			Olher	Eech .		Total		•	1	L.
		25 2 5 5	and Market	Min	Mox	Mio	Max *	: Min A	Max	Mlu	Mar				
	6061		0.15	_	0.05	! -	0.05		0.05		0.15	]			

ſ	"Heal/Costs.	8187 <b>S</b> 1	go. Re	S → Co	Mn	Master	Cr.	20 32 8 V V V	77 (2 <b>05</b> .0.52)	CELEONICE .	CONTRACTOR	Offers Each	Others Total
		1998	# C	*** \$ SC****	1.000 1773 2.7.1	*******		1,000 844 1, 411	.(4.000.000.)	5-23 St. 3	10.000		11,142
	4028239	0.69	0.30	0.31	0.10	0.87	0.13	0.04	0.02	_			_

#### Mechanical Property - Test Limits

THE WAR SHEET	Total Total Total Type Type	d Ur	S-L	270	i - L	EL 411	-Long
		M R	SI	K	SI	P	7T
	The state of the s	si S	•	-		-	
ToneTempely II Lo	Number 00 Tests	MATE VALUE	ON LESS CALLY STORY	MONTH		THE SHAPE	MAX values se
T6511H 21	112151 2	51,4	53,3	48.3	50,3	12,5	13,0
						1	

#### Cert Notes

Products manufactured with a T6511 temper also muct T6 temper requirements.

Yield strength has been determined by the 0.2% offset method

All Mill Finish Alloys produced at Sepa Extrusions comply with 0.4% Maximum Lend per Rolls, with the exception of 6262 alloy

In accordance with EN 18204 inspection Certificate Type 3.1

Melled in the USA or Other Qualified Countries as Defined by DFARS 225.872.1

Mode in USA

Certificate of Mill Test Results

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511 .750" X 1.50" X 144.0000" PART NO.

PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

BL PEC-777693-005

23Jul12

Pg 1/2



CERTIFIED TEST REPORT

Signed by:

http://Online.KaiserAluminum.com

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048

CUSTOMER PO NUMB	ER:	CUSTON	ER PART NUMBER:	PRODUCT DESCRIPTION	N:				
PEC-239300-1		ALRE	C00806	.750 X 1.500 SC RECT BAR					
KAISER ORDER NUMB	ER: LINE ITEM:	+	SHIP DATE:	KAISER LOT NUMBER:	ALLOY:	TEMPER:			
621011	001		05/25/2012	HK079 712	6061	T6511			
WEIGHT SHIPPED:	QUANTITY:	i	B/L NUMBER:	DIAM/DAF/THKNS:	WIDTH:	LENGTH:			
508.000 LB	32.000 PC	)   	603528			12.000 FT			
SHIP TO:	·	1		SOLD TO:		, , , , , , , , , , , , , , , , , , , ,			
THYSSENKRUP 2821 LANGSTAF CONCORD, ON	F ROAD			THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA					

#### **Actual Physical Properties**

<del></del>									
REFERENCE	Dash#	sample#	UTS (KSI)	YTS (KSI)	ELONG%	HARI	ONESS	CONDUCT.	BEND
HK079 712	0001	0001	43.0	41.6	19.4	RΞ	97	N/A	N/A
HK079 712	0001	0002	18.1	38.1	20.5	35	97	N/A	N/A
HK079 712	0001	оорз	43.0	41.6	20.8	33	97	N/A	N/A
HK079 712	C001	00b4	46.7	39.3	20.3	33	97	N/A	N/A
HK079 712	C001	00b5	47.4	43.3	18.0	RΞ	97	N/A	N/A
HK079 712	0001	oobs	47.8	40.0	18.0	33	97	N/A	n/r
HK079 712	C001	00b7	43.0	42.9	18.6	RE	97	N/A	N/A
HK079 712	0001	oobs	48.0	41.9	18.3	33	97	N/A	Ν/A
HK079 712	C001	0009	46.9	41.3	19.4	RE	97	N/A	N/A
нк079 712	C001	ouho	47.9	40.1	19.3	RE	97	N/A	N/A
нк079 712	C001	oohi	46.9	38.6	15.9	RE	97	N/A	ή/A
IIK079 712	C001	00h2	48.1	44.4	19.7	RE	96	N/A	N/A
HK079 712	C001	0013	48.0	42.2	21.7	RE	96	N/A	N/A
HK079 712	C001	0014	47.0	42.1	38.7	RE	96	N/A	ĸ/a
HK079 712	C001	00h5	47,5	39.4	17.6	RE	96	N/A	N/P.
HK079 712	0001	0016	48.4	40.4	15.1	RE	96	N/A	K/A
HK0/9 712	C001	0017	48.0	41.9	19.5	RE	95	N/A	N/A
HK079 712	C001	0013	48.1	43.1	17.6	RE	95	N/A	K/A

#### Chemical Composition (wt%), Aluminum Remainder

			- 1										_
LIMITS	Si	Fe	Cu	Μn	Mg	CI	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	D.4C	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NΑ	0.00	0.00
A32603	.68	-32	.24	.05	.98	.11	.06	.01	.00	.co	.00	.00	.01
A32602	.69	.32	. <u>þ</u> 3	.05	. 95	.10	.04	.02	.00	.co	.00	.00	- 00
A32601	.70	_30	.24	.06	. 97	.11	.05	.02	.00	, CO	.00	.oc	.00

### Applicable Requirements:

Plant Serial: 00045426

Kaiser Order Number: 621011

Line Item: 001

Page 1 of 2

Doc No. 135460 Indexed 29May12 by slssup1

PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs. Certificate of Mill Test Results

BL PEC-777693-005

23Jul12

Signed by: Pg 2/2

CERTIFIED TEST REPORT

http://Online.KaiserAluminum.com

ALUMINUM FABRICATED PRODUCTS

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511 .750" X 1.50" X 144,0000" PART NO.

ASTM-B221-08-STENCILED ASME-SB221 1998 SECT II AMS-QQ-A-200/8 UNSF96061 (T6511 also conforms to T6-not applicable to other tempers)

Miscellaneous Notes

MANUFACTURED IN USA (COMMERCE, CA) MELTED IN USA

CERTIFICATION

Kaiser Aluminum Fabricated products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Page 2 of 2

Alex Yen, Quality & Technology Manager

Plant Serial: 00045426 Kaiser Order Number: 621011

Line Item: 001

Dec No. 135460 Indexed 29May12 by slssup!

77 <b>77</b> 77777	$r \sim corp$	T'T' > '3T 1 77 '77 '77 '77 '77 '77 '77 '77 '77 '7	11 11 11 11 11 11 11 11 11 11 11 11 11	33 Z7 A	TERI	A 3.7	$\sim$	V T V
11 HH W	C.C. IN. V.	NIK IUPII	עוושוו	W III W	וו שבוו זוו	AN II	Ø.	INI M
13 13 11 11	しい しんしん	A 11/2 11/2 11		139 H X		<del>/</del> /\ // //	1/2	1217

Certificate of Mill Test Results BLPBC-777693-009

23Jul12 Pg 1/1

DART AEROSPACE

PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

EUTBITHEU
EXTRUDEX
AL UMINUM

TEL: (416)745-4444 FAX:(416)745-0925 1-800-668-7210 411 CHRISLEA ROAD, WOODBRIDGE, ONTARIO, CANADA L4L 8N4 http://www.extrudex.com

#### MILL TEST REPORT

BILL.70

THYSSENKRUPP MATERIALS, NA

THYSSENKRUPP MATERIALS, NA SO DESCRIPTION 2"x2.5" FB

Cen Code:

CUSTOMER PO

0.02

DIE NUMBER S 23922 DATE OF SHIPMENT

EXTRUDEX ORDER NO.

MANIFEST NO.

PEC-239512 CUSTOMER PART NUMBER

ALLOY TEMPER 6061 T6511 PART DESCRIPTION

7/16/2012 SALESMAN FORBES DODWELL

Signed by:

146935 - 4MADE IN CANADA

270266

CERTIFICATION

MILL TEST ASTM B221

Mechanical Properties

<u>Lot</u>

Alloy

Test Date

Strength (KSI)

Ultimate Tensile Yield Strength Percent (KSI) Elongation Hardness

Conductivity

A.11

6061

Jul/13/12

45.2

42.4

89.3, 89.0, 89.8

**Chemical Composition** 

A.11

Cast Number C7331164 6061

Еę <u>Cr</u> 0.01 0.86 0.06

0.00 0.01 0.01 0.00 0.00 0.00 0.00

13.30

<u>Bi</u> <u>Pb</u> 0.00 0.00 0.00

Al Other 0.00 0.00Remainder 0.00

David Natale

Quality Control Manager

1 - CUSTOMER COPY

MILL TEST REPORT

Doc No. 138898 Indexed 17Jul12 by jessy

DART AEROSPACE

ALUMINUM SHEET 6061 T6 .0810 Nom X 48.0000" X 144.0000" PART NO. PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Results

23Jul12

Pg 1/2 Signed by:

BL. PEC-777693-012



Abnahmeprüfzeugris 3.1 (EN 10204) Inspection certificate - mill certificate

AB-Pos. BNr/Los/Tellios

actual

Zentfiziert nach/centilled to ISO 9001, ISO/TS 16949, EN/AS 9100, ISO 14001, NADCAP

85289222 02/7 Nr.:

Rev. 0

1 von / of 2 Seite / page: Datum / date: 2012 02 15

0.08

0,04

Auftraggeber / customer:	Bestell Nr. / order no.:	PEC-236262
ThyssenKrupp Materials NA	Datum / date:	2012 01 19
2821 Langstaff Rd	Auftragsbest, Nr. / order confirm. no.:	636296
CDN-L4K 5C6 CONCORD,ON	Datum / date:	2012 01 20
Warenemplänger / consignee:	Lieferschein Nr. / delivery note:	85289222
ThyssenKrupp Materials NA	Datum / date:	2012 02 <u>29</u>
2821 Langstaff Rd CDN-L4K 506 CONCORD,ON	Akkreditiv Nr. / letter of credit no.:	
Endkunde, Bestell-Nr. / Your cust., ord. no.:		

Bedingungen/terms Produkt/product Techn. Lieferbedingungen / techn. spec.: Form / form: Sheet AMS-QQ-A-250/11, 08.1997 Werkstoff / material: 606 Zustand / temper: T6 ASTM B 209 - 07 Material meets also the mech. properties of AMS 4027N. Dim. / dim: [inch]: 0,080x48,00x144,00 Kundenariikel-Nr / customer article no.: 07.2008, but not marked ANSI H35.2-2009 ASME SB 209, 2007 Sondervorschrift / special terms:

ordtem.	Lot/No./Pa	Lot/No./Part		casi no. material		lal	packno.		wel	weight net.		cs.
02	25872/01/	0 01	/004729	4/1	6061	.1	6362	960002	4029	,982 lbs	•	77
Chemische Zusammensetzung / chemical composition: [%] Gewichtsanteile / weight proportion (OES)												
Guss Nr./cast no. AMAG designation												
01/0047294/1	6061.1		Sì	Fe	Cu	Ma	Mg	Or	Ni	Zn	TI	<b>!</b>

0,23

0,11

0,91

Werkstoff

Kollo

0,18

0,01

Guss Nr.

0,65

0,48

Zugversuci	n / Tensile to	288				
BNr/Los Lot/No.	Zustand temper	Richtung direction	Rm [ksi]	Rp0.2 [kel]	A2" [%]	
25872/01	T6	LT	47,0	39,2	16	
25872/01	T6	LT	47,1	39,2	15	
25872/01	T6	LT	47,3	39,3	15	
25872/01	TB	LT	47,0	39,2	16	
25872/01	76	LT	46,8	39,0	16	
25872/01	76	LT	46,7	38,9	15	
25872/01	T6	LT	46,7	38,9	15	
25872/01	T6	LT	46,8	39,0	16	
25872/01	T6	LT	46,6	38,7	15	

AMAG rolling GmbH, Postfach 32, A-5282 Ranshofen, Österreich - www.amag.at AMAG rolling Grabh, P.O. Box 32, A-5282 Ranshofen, Austria - www.amag.at

#### Certificate of Mill Test Results

DART AEROSPACE

ALUMINUM SHEET 6061 T6 .0810 Nom X 48.0000" X 144.0000" PART NO. PO/Rel 17463

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs. BL PEC-777693-012 23Jul12

Signed by: Pg 2/2

AMAG Rolling

> Abnahmeprüfzeugnis 3.1 (EN 10204) Inspection certificate – mill certificate

Zentifizier nech / certified to ISO 9001, ISO/TS 16949, EN/AS 9100, ISO 14001, NADCAP

Nr.: 85289222 02/7

Rev. 0

Seite / page: 2 von / of 2 Datum / date: 2012 02 15

Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellung entspricht. We hereby certify that the material described above has been lested and complies with the terms of the order contract.

Werksachverständiger / E-Mall / e-mall factory specialist
Josef Klampfer j.klampfer@amag.at

Herstellerland: Österreich / goods origin: The goods are of Austrian origin. Maschinell erstellt - Güttig ohne Unterschrift / Automated - valid without being signed.

> Au) AG rolling GmbH, Postiach 32, A-5282 Ranshofen, Österreich – www.amag.al AWAG rolling GmbH, P.O. Box 32, A-5282 Ranshofen, Austria – www.amag.at

Doc No. 130808 Indexed 22Mar12 by slssup1